```
<110> Ruben et al.
<120> 26 Human secreted proteins
<130> PZ040P1
<140> Unassigned
<141> 2000-12-01
<150> PCT/US00/15187
<151> 2000-06-02
<150> 60/137,725
<151> 1999-06-07
<160> 190
<170> PatentIn Ver. 2.0
<210> 1
<211> 733
<212> DNA
<213> Homo sapiens
<400> 1
gggatccgga gcccaaatct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg
                                                                          60
                                                                         120
aattogaggg tgcaccgtca gtcttcctct tccccccaaa acccaaggac accctcatga
teteceggae teetgaggte acatgegtgg tggtggaegt aagceacgaa gaccetgagg
                                                                         180
tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg
                                                                         240
                                                                         300
aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact
ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca acccccatcg
                                                                         360
agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc
                                                                         420
                                                                         480
catcceggga tgagetgace aagaaceagg teageetgac etgeetggte aaaggettet
                                                                         540
atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga
ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg
                                                                         600
                                                                         660
acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc
acaaccacta cacgcagaag agcototoco tgtotooggg taaatgagtg cgacggccgc
                                                                         720
                                                                         733
gactctagag gat
<210> 2
<211> 5
<212> PRT
<213> Homo sapiens
<220>
<221> Site
<222> (3)
<223> Xaa equals any of the twenty naturally ocurring L-amino acids
<400> 2
Trp Ser Xaa Trp Ser
<210> 3
<211> 86
```

```
<212> DNA
   <213> Artificial Sequence
   <220>
   <221> Primer_Bind
   <223> Synthetic sequence with 4 tandem copies of the GAS binding site found
   in the IRF1 promoter (Rothman et al., Immunity 1:457-468 (1994)), 18
   nucleotides complementary to the SV40 early promoter, and a Xho I
   restriction site.
   <400> 3
                                                                             60
   gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc
                                                                             86
   cccqaaatat ctgccatctc aattag
   <210> 4
    <211> 27
    <212> DNA
<213> Artificial Sequence
    <220>
    <221> Primer Bind
    <223> Synthetic sequence complementary to the SV40 promter; includes a Hind
LL
III restriction site.
a
    <400> 4
27
    gcggcaagct ttttgcaaag cctaggc
<210> 5
    <211> 271
    <212> DNA
    <213> Artificial Sequence
    <220>
    <221> Protein_Bind
    <223> Synthetic promoter for use in biological assays; includes GAS binding
    sites found in the IRF1 promoter (Rothman et al., Immunity 1:457-468
    (1994)).
    <400> 5
    ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg
                                                                             60
    aaatatetge cateteaatt agteageaac catagteeeg eeeetaaete egeceateee
                                                                            120
    geocctaact eegeceagtt eegeceatte teegeceeat ggetgaetaa tittittat
                                                                            180
                                                                            240
    ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt
                                                                            271
    ttttggaggc ctaggctttt gcaaaaagct t
    <210> 6
    <211> 32
    <212> DNA
    <213> Artificial Sequence
    <220>
    <221> Primer Bind
    <223> Synthetic primer complementary to human genomic EGR-1 promoter
    sequence (Sakamoto et al., Oncogene 6:867-871 (1991)); includes a Xho I
    restriction site.
     <400> 6
                                                                              32
    gcgctcgagg gatgacagcg atagaacccc gg
```

<212> DNA

```
<210> 7
<211> 31
<212> DNA
<213> Artificial Sequence
<220>
<221> Primer_Bind
<223> Synthetic primer complementary to human genomic EGR-1 promoter
sequence (Sakamoto et al., Oncogene 6:867-871 (1991)); includes a Hind III
restriction site.
<400> 7
gcgaagcttc gcgactcccc ggatccgcct c
                                                                         31
<210> 8
<211> 12
<212> DNA
<213> Homo sapiens
<400> 8
                                                                         12
ggggactttc cc
<210> 9
<211> 73
<212> DNA
<213> Artificial Sequence
<220>
<221> Primer Bind
<223> Synthetic primer with 4 tandem copies of the NF-KB binding site
(GGGGACTTTCCC), 18 nucleotides complementary to the 5' end of the SV40
early promoter sequence, and a XhoI restriction site.
<400> 9
                                                                         60
geggeetega ggggaettte eeggggaett teeggggaet tteegggaet tteeateetg
                                                                         73
ccatctcaat tag
<210> 10
<211> 256
<212> DNA
<213> Artificial Sequence
<221> Protein Bind
<223> Synthetic promoter for use in biological assays; includes NF-KB
binding sites.
<400> 10
ctegagggga ctttcccggg gactttccgg ggactttcca tctgccatct
                                                                         60
                                                                        120
caattagtca gcaaccatag tecegeceet aacteegeee atecegecee taacteegee
                                                                        180
caqttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga
                                                                        240
ggeogecteg geetetgage tattecagaa gtagtgagga ggettttttg gaggeetagg
                                                                        256
cttttgcaaa aagctt
<210> 11
<211> 2318
```

## <213> Homo sapiens

	-					
<400> 11						
cagacctcgg	acqaqaqcqc	cccaaaaaac	tcaaaacaca	tacacacata	gcakacggag	60
aaggccagtg						120
gtggaaaatg	ccaccatca	aatacatctt	ttcattatta	ttctttctt	tactagaagg	180
aggcaaaaca	ggaggeaega	aacattcaca	gacatattgc	atotttcaao	acaagaagta	240
aggcaaaaca	gagcaagcaa	aacactcaga	gacacacage	acgettaattt	actorotosa	300
cagagtgggt	gagagatggt	accettacet	ttaaaaaaa	gggccggccc	casatottos	360
ctgcatctgc	cagagaatg	ggaatgtgtt	ctgtagttga	gccagacgcc	caaacyccca	420
ttgcctttct	cctgtgcata	teccecatet	gtgetgeet	tagataga	aagactccct	480
accccagtg	aacaataagg	tgaccagcaa	gtettgegag	cacaacygga	caacttacta	540
acatggagag	ctgttcgtag	ctgaagggct	ctttcagaat	cggcaaccca	accaatgeac	
ccagtgcagc	tgttcggagg	gaaacgtgta	rrgrggrere	aagacttgcc	CCadallado	600
ctgtgccttc	ccagtctctg	ttccagattc	ctgctgccgg	gtatgcagag	gagatggaga	660
actgtcatgg	gaacattctg	atggtgatat	cttccggcaa	cctgccaaca	gagaagcaag	720
acattcttac	caccgctctc	actatgatcc	tccaccaagc	cgacaggctg	gaggtctgtc	780
ccgctttcct	ggggccagaa	gtcaccgggg	agctcttatg	gattcccagc	aagcatcagg	840
aaccattgtg	caaattgtca	tcaataacaa	acacaagcat	ggacaagtgt	gtgtttccaa	900
tggaaagacc	tattctcatg	gcgagtcctg	gcacccaaac	ctccgggcat	ttggcattgt	960
ggagtgtgtg	ctatgtactt	gtaatgtcac	caagcaagag	tgtaagaaaa	tccactgccc	1020
caatcgatac	ccctgcaagt	atcctcaaaa	aatagacgga	aaatgctgca	aggtgtgtcc	1080
			taaaggctac			1140
gcctgtgtat	gagtctgtat	tcatggagga	tggggagaca	accagaaaaa	tagcactgga	1200
gactgagaga	ccacctcagg	tagaggtcca	cgtttggact	attcgaaagg	gcattctcca	1260
gcacttccat	attgagaaga	tctccaagag	gatgtttgag	gagcttcctc	acttcaagct	1320
ggtgaccaga	acaaccctga	gccagtggaa	gatcttcacc	gaaggagaag	ctcagatcag	1380
ccagatgtgt	tcaagtcgtg	tatgcagaac	agagcttgaa	gatttagtca	aggttttgta	1440
cctggagaga	tctgaaaagg	gccactgtta	ggcaagacag	acagtattgg	atagggtaaa	1500
			aggcttattt			1560
taaaactcca	aactcaaatg	cagtcaatta	ttcacgccat	gcacagcata	atttgctcct	1620
ttgtgtgtgt	gtgtgtgtgt	gtgtgtgtgt	gtgtggtaaa	ggggggaagg	tgttatgcgg	1680
ctactccctc	cqtcccaqaq	gtggcagtga	ttccataatg	tggagactag	taactagatc	1740
			tgattcatcc			1800
			cgcagagagt			1860
ctccaggtgc	taggacacac	ctttqcaaaa	tgctgtggga	agcaggagct	ggggagctgt	1920
gttaagtcaa	agtagaaacc	ctccaqtqtt	tggtgttgtg	tagagaatag	gacatagggt	1980
aaagaggcca	agctgcctgt	agttagtaga	gaagaatgga	tataattett	cttgtgtatt	2040
tatttgtatc	ataaacactt	ggaacaacaa	agaccataag	catcatttaq	cagttgtagc	2100
			agagtaacat			2160
			acttatttat			2220
			aaaatcaaaa			2280
		gtagtagtag				2318
9550505		333	333-			
<210> 12						
<211> 1923						
<212> DNA						
<213> Homo	saniens					
(213) 110110	adhiena					
<400> 12						
	taaggcaccc	ttttcctcat	gcagcccagc	ctgactcctg	qaqattqtqa	60
			ggtggctgag			120
			agagacetee			180
					cccagctgca	240
			caggaaggag			300
					ggctggactg	360
			cagggcagcc			420
			gcaagtgggc			480

gagectggeg teeggeetgt ggegeaceet geaagtggge tggaacatge agetgetgee

cgcgggcttg gcgtcctttg ttgaagtggt cagcctatgg tttgcagagg ggcagcggta

cagccacgcg gcaggagagt gtgctcgcaa cgccacctgc acccactaca cgcagctcgt

cagccacgcg .	gcaggagagc	gegeeegeaa	cgccacccgc		- 5 5 5 -	
gtgggccacc	tcaagccagc	tgggctgtgg	gcggcacctg	tgctctgcag	gccaggcagc	660
gatagaagcc	tttgtctgtg	cctactcccc	cggaggcaac	tgggaggtca	acgggaagac	720
aatcatcccc	tataagaagg	gtgcctggtg	ttcgctctgc	acagccagtg	tctcaggctg	780
cttcaaagcc	tgggaccatg	caggggggct	ctgtgaggtc	cccaggaatc	cttgtcgcat	840
gagetgeeag	aaccatggac	gtctcaacat	cagcacctgc	cactgccact	gtccccctgg	900
ctacacgggc	agatactgcc	aagtgaggtg	cagcctgcag	tgtgtgcacg	gccggttccg	960
ggaggaggag	tgctcgtgcg	tctgtgacat	cggctacggg	ggagcccagt	gtgccaccaa	1020
ggtgcatttt	cccttccaca	cctgtgacct	gaggatcgac	ggagactgct	tcatggtgtc	1080
ttcagaggca	gacacctatt	acagagccag	gatgaaatgt	cagaggaaag	gcggggtgct	1140
ggcccagatc	aaqaqccaqa	aaqtqcaqqa	catcctcgcc	ttctatctgg	gccgcctgga	1200
gaccaccaac	gaggtgattg	acaqtqactt	cgagaccagg	aacttctgga	tcgggctcac	1260
ctacaagacc	gccaaggact	ccttccqctq	ggccacaggg	gagcaccagg	ccttcaccag	1320
ttttgccttt	gggcagcctg	acaaccacqq	gtttggcaac	tgcgtggagc	tgcaggcttc	1380
agctgccttc	aactggaaca	accadedeta	caaaacccga	aaccgttaca	tctgccagtt	1440
tgcccaggag	cacatctccc	aataaaaccc	agggtcctga	ggcctgacca	catggctccc	1500
tegeetgeee	taggaggagg	agetetaett	acctatacac	ccacctgtct	ggaacaaggg	1560
ccaggttaag	accacatgcc	tcatqtccaa	agaggtetea	gaccttgcac	aatqccaqaa	1620
gttgggcaga	dadaddcadd	gaggcagtg	adddccaddd	agtgagtgtt	agaagaagct	1680
ggggcccttc	acctacttt	gattgggaag	atgggcttca	attagatggc	qaaqqaqaqq	1740
acaccgccag	taatacaaaa	aggetgetet	cttccacctq	gcccagaccc	tataaaacaa	1800
cggagcttcc	ctataacata	aaccccacad	ggtattaaat	tatgaatcag	ctgaaaaaaa	1860
aaaaaaaaaa	222222222	222222222	aaaaaaaaaa	aaaaaaaaa	aaaaaaaaa	1920
aaa	aaaaaaaaaa	_				1923
<210> 13						
<211> 4720						
<212> DNA						
<213> Homo	sapiens					
.400- 12						
<400> 13		200000000	asassaasta	tatogoctoc	cctagactta	60
ccacgcgtcc	ggagagaggg	acagaggeeg	gagaaggacg	tatggcctgc	cacactaget	120
congresses	cotgageorg	ageceeeta	ggggtgggg	ccatgaagca	aactacaaaa	180
ctgctggctc	ccctgctggg	tagagagaga	gagetagetaa	cattcaccc	ggctgcaggg agcagccagg	240
gecacagaet	tagaagtteet	agttcataca	ccaccactcc	tagactccct	ctatggcacc	300
geeeggegge	tagecocccg	agreegegeg	aatcetttee	cttcacactt	ggtaaaggcc	360
gegegeegee	cocceegge	ggtgcagete	aaccecccc	tacaatacaa	ggcaaactac	420
ctactgaatg	agetggeete	cgtgaaggtg	aatgaggtgg	taccactac	ggegggetae	480
graduated	cigigatege	gggcccccac	ccgccgccgg	tgaagacaga	cgggctttgc	540
ataaaatata	geegeegeea	ccggcgccgc	ttactactac	tgaccaccct	gcacaaggcg cttgctgctg	600
attactata	tatatacatt	totcacggic	caccacacac	atgaacagat	gggcccagc	660
attggtgtgg	tacatasasa	cctcctcacc	ctctagaacc	togtototoa	tgtccccaa	720
accyaggeca	coctogagae	ccegccage	ctacccaaa	agcaagtctc	agaggagctg	780
gagergeagg	gtgtggcaca	tagazacaca	atccacactc	agetcaggag	ctccgtgtac	840
gatggtgttg	grgrgageae	cagtttagg	caggicciac	aggtctccgt	gcaccacctg	900
annageteg	cggccgcggg	gatagageta	caggeeeege	aggaggaggt	ggagccagcc	960
caaaccccga	acgetacage	ggtagagetg	ctactacaaa	aggcaggta	ccagggagat	1020
tataaaaaa	acceggacceg	addacadag	ctacaactaa	atactasctt	cagccaggtg	1080
Lglgcagggg	aggetatact	ggcccgcacc	aaaddtatac	acaccacce	cttctccagc	1140
atastasss	accatyteet	graciayeta	accetteese	ccetaactaa	catgcagaca	1200
acggcccagg	ayyayaacag	gaagaagga	geceeccag	accedased	ggtgaggaca	1260
tecagegrag	rgcaagagct	gaayaayyca	getteecet	adaccesaaa	actgcaggag	1320
ctggctgaag	ggttcccggg	ctacctccac	gerreeger gaaatacaa	gataccagge	ctacaggtag	1380
gcggaggaga	geageegeee	ctaccigcag	gagguguaga ctattcctcc	tactetace	ctacaggtgg	1440
accecegect	gegraerate	catatataa	acceptage	ccadccaccc	cctgctgggc	1500
ctcaatctgg	gcacctgggg	corgeorged	ayyyacyacc	caycacc	agaagccaag	1300

ggcgaggctg	gagcccgctt	cctcatggca	ggtgtgggcc	tcagcttcct	ctttgctgca	1560
cccctcatcc	tcctggtgtt	cgccaccttc	ctggtgggtg	gcaacgtgca	gacgctggtg	1620
tgccggagct	gggagaacgg	cgagctcttt	gagtttgcag	acaccccagg	gaacctgccc	1680
ccgtccatga	acctgtcgca	acttcttggc	ctgaggaaga	acatcagcat	ccaccaagcc	1740
tatcagcagt	gcaaggaagg	ggcagcgctc	tggacagtcc	tgcagctcaa	cgactcctac	1800
gacctggagg	agcacctgga	tatcaaccag	tataccaaca	agctacggca	ggagttgcag	1860
agcctgaaag	tagacacaca	gagcctggac	ctgctgagct	cagccgcccg	ccgggacctg	1920
gaggccctgc	agagcagtgg	gcttcagcgc	atccactacc	ccgacttcct	cgttcagatc	1980
cagaggcccg	tggtgaagac	cagcatggag	cagctggccc	aggagctgca	aggactggcc	2040
caggcccaag	acaattctgt	gctggggcag	cggctgcagg	aggaggccca	aggactcaga	2100
aaccttcacc	aggagaaggt	cgtcccccag	cagagccttg	tggcaaagct	caacctcagc	2160
gtcagggccc	tggagtcctc	tgccccgaat	ctccagctgg	agacctcaga	tgtcctagcc	2220
aatgtcacct	acctgaaagg	agagctgcct	gcctgggcag	ccaggatcct	gaggaatgtg	2280
agtgagtgtt	tcctggcccg	ggagatgggc	tacttctccc	agtacgtggc	ctgggtgaga	2340
gaggaggtga	ctcagcgcat	tgccacctgc	cagcccctct	ccggagccct	ggacaacagc	2400
cgtgtgatcc	tgtgtgacat	gatggctgac	ccctggaatg	ccttctggtt	ctgcctggca	2460
tggtgcacct	tcttcctgat	ccccagcatc	atctttgccg	tcaagacctc	caaatacttc	2520
cgtcctatcc	ggaaacgcct	cagctccacc	agctctgagg	agactcagct	cttccacatc	2580
ccccgggtta	cctccctgaa	gctgtagggc	cttgtggggt	gaggtgaccc	tgaggctgcc	2640
tatcatacaa	tttgatttag	cctgggccac	aggacttcgg	tagctcttgc	cccagagccc	2700
aggctggcat	ccaggcctgg	actgtcccca	gttccggctt	acctggcccc	accttgcctg	2760
ctcctttcca	cccctttctg	ctcacgaccc	ccatcattca	cgctcagaat	cacatgggac	2820
ttctgtgcag	ctgcagagcc	agcaagtccc	tccaggtgtc	accccttacc	cccatgctgg	2880
tggcatcctc	acaggaagag	cctgttctcc	acctgctgga	gcctggaccc	tggggtggga	2940
cagaggcctc	gtccaacccc	actccccttc	ccgtgtgtct	tccccctgcc	aagcctcccc	3000
ctqccaaqcc	tccccctqcc	cctctctgag	cccctcgccc	cccacaccgt	cctcatctgg	3060
cctccccct	ggcccccact	tccctcttat	gcccttcctg	gccctttgct	tcctccctta	3120
gtcccctctt	caccatatct	ccactgctac	cttgctggcc	ccagagacca	ccctgcccaa	3180
ccaaaccact	caggtaacgc	cactaatcag	gcaggggcca	ccatggccta	ggtctgggct	3240
ggctgcaggc	cctgcctcat	ggcctctgag	ccctccactg	ccccagggcc	ttgggccctc	3300
tgcagatctc	atccaggatt	tattggtgtc	cagtggggtg	agggaggcct	gtctgaaggc	3360
cgagcctccc	tgcctgcacc	caagttagaa	atgggggtac	cagcacttag	cttctctctg	3420
agtgctggct	cccaaggaag	ggacctggga	cctgggccac	agtgggggct	tgcccttacc	3480
tcttcagaag	gaagcatctt	ccacagcccc	cacccaactt	tcttaggagt	gatctggtgg	3540
ccagaacagg	attttgcacg	gcccctttta	tcctgcgcat	gtggcctagg	gtcatcccca	3600
gcccatccct	gtgtcagccc	tgagtgctgg	acactgcgtt	ccagaaatga	ggaagaggag	3660
agagaagaga	tggacagacc	tcagatccat	taaagtgttc	tcacttccct	gagacttggt	3720
tctgggtcct	taaaaccagg	tttcctaggc	tgggaccctg	tacatagttg	gtgtttaatg	3780
agtgtttatg	gagaggagag	ttctaaggtc	acctctggct	gcaggcatcc	agggattatt	3840
ccagcaatct	gcaggtaggg	agtgggtccc	agcctgggag	cctgctgtca	ggagcaggca	3900
gacctggact	cacagcctgg	ctgtgatgct	tgttcgctca	gcttctccat	ttatgagatg	3960
gggagaatag	tcacagcctc	ctcaaagggt	tgtgaaaatc	aaatgtgata	atttgtggaa	4020
agcccttagc	agtggcctgg	cacaaaacaa	atgctcagtg	gatggaagct	gcctattatt	4080
attgtcgttg	ttgttgtttg	ccatgactgc	tctgggccgg	gggtagagct	agcatccggg	4140
catgtacgag	ggaagaggga	ggcaggcctc	tattcaaagg	cagaaattcc	tttaagattg	4200 4260
tggtctgctg	ggtttcaggg	agtgtctgtg	ttgtttgttt	ttgtttgttt	gtttgttttg	
agacagggtc	tegetetgte	acccaggctg	gagtgtagtg	gtgcagtctt	ggctcactgc	4320 4380
aacctccacc	tectgggete	aagcgattct	catgcctcag	cctcccgagt	agcegggact	4380 4440
acaggtgtgt	gccactatgc ,	ctggctaatt	tttgtattt	ttgtagagac	ggggttttgc	4440
catgttgccc	aggctggaag	tgtctatgtt	taactgcatc	ttataaacca	gcaacaagtt	4500 4560
ttctactggg	aattagaatg	gtgcatacac	aatgtattat	catcactgtc	agatgagcat	4560 4620
gcttgaatgt	agcatgactg	cctcttttg	cttttcctag	aggittitt	tttgcttgtt	4620 4680
					taaaattgat	4720
ggcattacaa	aaaaaaaaa	. aaaaaaaaaa	aaaaaaaagg			+ / 20

<212> DNA

```
<213> Homo sapiens
<400> 14
cacgogtccg cggacggtgg gcggacgcgt gggttgttct actacactcc cctactgtta
                                                                         60
acattttccc caaagaagag gaaaatagat ttgtgaaagc aattgcactt caaaatgcaa
                                                                        120
atgacagtgg gggaaaaaga ataccetgtt tgetgeeagt tgataetttt tagtttgtge
                                                                        180
tgtttcattt gggaagaatt gttcttgtat attaaaatgg agttttgcct tattttttta
                                                                        240
ctgcttatcc tggagttttg tcaaatattt gattgtctaa gaaaatgcta ttatagatta
                                                                        300
acatgtctta gctgtttact tctaaatctt ttaatttttt tcagtgaaaa agtagtatct
                                                                        360
gaaaatccca acattgttgt aattgggtta gctgytgtta tcatgttgtc tatcatgttt
                                                                        420
ataaaatggt tactcatctt gcttattttc cttttatcct tyaagaacct tggaaaagaa
                                                                        480
caagaagaaa qqqaaqatct tttaaactct ctattqacca ccaqttaacq tattaqttqc
                                                                        540
caatatgcca gcttggacat cagtgtttgt tggatccgtt tgaccaattt gcaccagttt
                                                                        600
tatccataat gatggattta acagcatgac aaaaattatt tttttttttg ttcttgatgg
                                                                        660
agattaagat gccttgaatt gtctagggtg ttctgtactt agaaagtaag agctctaagt
                                                                        720
acctttccta cattttcttt ttttattaaa cagatatctt cagtttaatg caagagaaca
                                                                        780
ttttactgtt gtacaatcat gttctggtgg tttgattgtt tacaggatat tccaaaataa
                                                                        840
                                                                        900
aaggactotg gaagatttto attgaggata aattgocata atatgatgoa aactgtgott
ctctatgata attacaatac aaaggttcca ttcagtgcag catatacaat aatgtaattt
                                                                        960
agtctaacac agttgaccct attttttgac acttccattg tttaaaaaata cacatggaaa
                                                                       1020
aaaaaaaacc ctatatgctt actgtgcacc tagagctttt ttataacaac gtctttttgt
                                                                       1080
ttgtttgttt tggattcttt aaatatatat tattctcatt tagtgccctc tttagccaga
                                                                       1140
atotoattac tgcttcattt ttgtaataac atttaattta gatattttcc atatattggc
                                                                       1200
                                                                       1260
actgctaaaa tagaatatag catctttcat atggtaggaa ccaacaagga aactttcctt
taactccctt tttacacttt atggtaagta gcagggggg aaatgcattt atagatcatt
                                                                       1320
tctaggcaaa attgtgaagc taatgaccaa cctgtttcta cctatatgca gtctctttat
                                                                       1380
tttactagaa atgggaatca tggcctcttg aagagaaaaa agtcaccatt ctgcatttag
                                                                       1440
ctgtattcat atattgcatt tctgtatttt ttgtttgtat tgtaaaaaat tcacataata
                                                                       1500
aacgatgttg tgatgtaaaa aaaaaaaaa aaaaaaaagg gcggccgctc tagaggatcc
                                                                       1560
                                                                       1576
cccgaggggg cccaag
<210> 15
<211> 5367
<212> DNA
<213> Homo sapiens
<400> 15
ccaegegtee ggeteteteg ccaacegtgg tggeteettg egtteetaca tecteteate
                                                                         60
tgagaatcag agagcataat cttcttacgg gcccgtgatt tattaacgtg gcttaatctg
                                                                        120
aaggttetea gteaaattet tigigateta eigatigigg gggeatggea aggittigett
                                                                        180
aaaggagett ggetggtttg ggeeettgta getgacagaa ggtggeeagg gagaaggeag
                                                                        240
cacactgete ggagaatgaa ggegettetg ttgetggtet tgeettgget eagteetget
                                                                        300
aactacattg acaatgtggg caacctgcac ttcctgtatt cagaactctg taaaggtgcc
                                                                        360
teccaetaeg geetgaceaa agataggaag aggegeteae aagatggetg tecagaegge
                                                                        420
tgtgcgagcc tcacagccac ggctccctcc ccagaggttt ctgcagctgc caccatctcc
                                                                        480
ttaatgacag acgagectgg cctagacaac cctgcctacg tgtcctcggc agaggacggg
                                                                        540
cagccagcaa tcagcccagt ggactctggc cggagcaacc gaactagggc acggcccttt
                                                                        600
gagagatcca ctattagaag cagatcattt aaaaaaaataa atcgagcttt gagtgttctt
                                                                        660
cgaaggacaa agagcgggag tgcagttgcc aaccatgccg accagggcag ggaaaattct
                                                                        720
gaaaacacca ctgcccctga agtctttcca aggttgtacc acctgattcc agatggtgaa
                                                                        780
attaccagca tcaagatcaa tcgagtagat cccagtgaaa gcctctctat taggctggtg
                                                                        840
ggaggtagcg aaaccccact ggtccatatc attatccaac acatttatcg tgatgggtg
                                                                        900
ategecagag aeggeegget aetgeeagga gaeateatte taaaggteaa egggatggae
                                                                        960
atcagcaatg teceteacaa etacgetgtg egteteetge ggeageeetg eeaggtgetg
                                                                       1020
```

tggctgactg tgatgcgtga acagaagttc cgcagcagga acaatggaca ggccccggat

gcctacagac cccgagatga cagctttcat gtgattctca acaaaagtag ccccgaggag

1080

cagcttggaa	taaaactggt	gcgcaaggtg	gatgagcctg	gggttttcat	cttcaatgtg	1200
ctqqatqqcq	gtgtggcata	tcgacatggt	cagcttgagg	agaatgaccg	tgtgttagcc	1260
atcaatggac	atgatcttcg	atatggcagc	ccagaaagtg	cggctcatct	gattcaggcc	1320
agtgaaagac	gtgttcacct	catcatatcc	cgccaggttc	ggcagcggag	ccctgacatc	1380
tttcaggaag	ccqqctqqaa	cagcaatggc	agctggtccc	cagggccagg	ggagaggagc	1440
aacactccca	agcccctcca	tcctacaatt	acttgtcatg	agaaggtggt	aaatatccaa	1500
aaaagacccc	ggtgaatctc	toggoatgac	cgtcgcaggg	ggagcatcac	atagagaatg	1560
ggatttgcct	atctatotca	tcagtgttga	gcccggagga	gtcataagca	gagatggaag	1620
aataaaaaca	ggtgacattt	tattaaatat	ggatggggtc	gaactgacag	aggtcagccg	1680
dadtdaddda	gtggattat	tgaaaagaac	atcatcctcg	atagtactca	aagetttgga	1740
agtgagged	tatgagggg	aggaagactg	cagcagccca	acaaccctaa	actccaacca	1800
caacataaca	ccacccacto	aggaagaccg	atcctgggtc	atgtggctgg	aattaccacq	1860
caacacggcc	aactotaaao	atattotatt	acgaagaaac	acagetggaa	atctagactt	1920
ctacattata	adecycudag	aacaatacaa	tggaaacaaa	ccttttttca	tcaaatccat	1980
tattaaaaa	acaccaccat	acaatcatca	aagaattaga	tataataata	ttcttcttqc	2040
tgtcgaagga	acaccagcac	caccaatcat	acatgcttgc	tragcaagac	tactaaaaaa	2100
agttaaagge	agaagtacat	taactattot	ttettggeet	ggcacttttt	tatagaatca	2160
acccaaagga	agaaccaccc	agaaaaatga	caaataggct	aagaagttga	aacactatat	2220
atgatgggtt	agaggaaaac	tttaaaaacca	gaatacattg	taaaaatoto	aggaaaagta	2280
ttatettgte	agettetata	cttadagada	gaacacactg	attocasasa	aggadaagca	2340
tgatcatcta	atgaaagcca	gitadacett	agaaaatatg	caacattott	tatattttt	2400
actagettet	cccagugug	gaggatttet	cattactcta	ataccccact	cacaccccc	2460
ctattcaata	aaaageceta	adacaactaa	aatgatttgt	acaccccacc	ataaccattt	2520
tgatttaaat	ttaaaatttg	gtatatgetg	aagtctgcca	agggcacacc	tttcatcaaa	2580
ttaatttaca	gctaaaatat	tttttaaaat	gcattgctga	gaaacgitge	taattaagat	2640
caagaataaa	tatttttcag	aagttatagt	tgtcttttag	tatgtgatac	chactaayat	2700
tacttttgta	ttatcactat	ttaaaagatc	ctagtaatat	attettteaa	acaccatgtt	2760
atttgttacc	atcaccgatg	aatacctcct	aggcttatcc	ctaaaaatgc	tegeteagag	
aattaattat	aaacttgttt	tgtttttagt	aagaaatggc	taaagetett	ttttttdddad	2820
aatcgttagt	aactgtataa	aaactctatg	ctgctccacc	agtgggcctt	ggaaaatgca	2880
tcaagaaggc	caaaccagct	tgaccctggc	tcacagacat	ggtcatgagg	cgatttaaat	2940
ttgtgccaca	atgaagagtg	tgtgtacaca	tgcctcctag	aaactacact	atgggtaatt	3000
aatttatttc	atagaggcca	cccagatgcc	ttataggttt	tattaatttg	gatatgaaag	3060
tgtaccccat	ttggtttcac	caggaaccca	aatttagaat	attgaaaagc	catcaaaaag	3120 3180
ttgtgatatc	aaaaatgtat	gagtetetta	atatactaag	caagagtgtc	acagcagtaa	
tgataaagac	tagttttaat	ctcaagcctt	agaggggccc	tttgttgcct	tttgtggtgc	3240
agcctcttaa	gagagtggtg	tttgattaac	aaaaaaactg	tggcccaagt	ggaaccettg	3300
accttttctc	agataatctg	tgtatgtaca	cagctaacac	agetetttag	attccctgtt	3360
aagtgactca	ttcacattcc	ttttttggat	ataaagtcat	tgatgtattt	ttatttttga	3420
aatagtacaa	gacaaagatt	tttaacttaa	catgaaaaat	tcactcttt	attttggaaa	3480
aaaagttaac	ttttcatact	aacaaacaga	acaagattta	aggtaaattt	cttaagcatt	3540
atccagaaaa	ataacaagat	ttatagtatc	tacttctggt	actaatatac	acaaaaggcc	3600
			cggtgctctc			3660
tgcccgcttc	ttttccttct	ttgcttcttt	tagattttt	gtgtttgtgt	ctcctgtgac	3720
tatctccttc	ttcactttca	tggcgacgtc	tactattact	tcgagaagac	ttatgtctgg	3780
tttcctctt	ctccctgtgt	cgtctttctc	tatgtcgttc	ttettttet	cgacttgctc	3840
tgtgacgctc	ataacctctt	tctgcatatt	ccctgtatct	gtatcgttct	tcatcgctgt	3900
tgaaaacact	tggtgtagga	. ctgtgatcac	getecetete	tetetetetg	gtgcgttctc	3960
tttctctgtc	ccgatcacgg	tetegetete	tgtctctgtc	tctctctcta	tctcggtctt	4020
tctctcttct	ggcataatag	tcccactgct	tgctggtgtc	cacaagacta	ggccacgaag	4080
gagcagaacc	aggaagatgg	ggaaaggcaa	cattgccata	tggaaatgca	cgtgcagaac	4140
gactatcata	accagaggaa	tgtccacttt	ctattgttgg	tataagagat	ggaggtggag	4200
cgcctggtgg	aggaggaaaa	. cccggtggtg	gaatcagagg	tggagcagtg	ctgacagtcg	4260
gaggaggtgg	aagaaatgga	. ggaggtggaa	ggtgagtggg	aggageteet	ggagggaaaa	4320
acggaggtgg	tttgctaaaa	. ttgttgtcta	cttcagtagc	agatctttca	gaaaggacct	4380
gtatgttgct	gttctcattt	gcccgtcgcc	tgccttctac	tcggctgata	gttatagtct	4440
gaccgataac	atcaattgcc	ccaggtaatc	tectgetegg	tggaagccca	gtcttgaaca	4500
aagaaggagg	agaagtaaac	: tcagcttttg	tagatggaag	ggcagtttct	ttctctgagt	4560
ttccagttct	tccctgctgt	accgtaattt	tatttgtagt	agaggttact	ggtataactt	4620

caaqtcccat	tcqtatcctc	ttttgtttt	cacagtaagc	tttccaggta	tcttcattaa	4680
acccataatt	aaaataatca	gaaagatcag	caccaggttt	acgccatggt	ttatcttcaa	4740
aagaatccaa	atctacctct	aagagtggaa	ctccattaat	gcttccaggt	gcatcaaggt	4800
ctactccttt	gacttttgtc	cctgtagttc	cataaactct	tccccctgtc	ttgatgttaa	4860
gatttacagg	tgctgtacca	taactcccat	actgtggtgc	tcccgtttta	atgtctccta	4920
tagtgacatg	aacatcatct	tcatcatcat	cgctgtcact	atcactatca	tcttcggtct	4980
cagtcacttt	caattttaat	aaaccatttt	cagcagtttc	atcttcaatt	ccagatggag	5040
gattagcact	ggcattttct	tcttctggcc	tttcaacttc	attttcatcg	ccatagagcc	5100
actottocto	ctcatcccct	ccggtcccgc	cactcaactc	cgacactagg	cgctcgacct	5160
caccaaccaa	catggccgcc	ccgagcgcaa	cttaaacqcq	gcgatcaaca	gccccctcca	5220
		gccccgaggc				5280
aacgaagaaa	gctcgagact	ccaatcccag	gaaggcgacg	qcaqcqqcqq	caaagatgaa	5340
gcctccagcg			3 33 3 3			5367
5000000505		-3-333-				
<210> 16						
<211> 1685						
<212> DNA						
<213> Homo	sapiens					
	-					
<400> 16						
ccacgcgtcc	gcgcacggcc	cgcgaccgag	cgtgcggact	ggcctcccaa	gcgtggggcg	. 60
acaagctgcc	ggagctgcaa	tgggccgcgg	ctggggattc	ttgtttggcc	tcctgggcgc	120
cgtgtggctg	ctcagctcgg	gccacggaga	ggagcagccc	ccggagacag	cggcacagag	180
gtgcttctgc	caggttagtg	gttacttgga	tgattgtacc	tgtgatgttg	aaaccattga	240
tagatttaat	aactacaggc	ttttcccaag	actacaaaaa	cttcttgaaa	gtgactactt	300
taggtattac	aaggtaaacc	tgaagaggcc	gtgtcctttc	tggaatgaca	tcagccagtg	360
tggaagaagg	gactgtgctg	tcaaaccatg	tcaatctgat	gaagttcctg	atggaattaa	420
atctgcgagc	tacaagtatt	ctgaagaagc	caataatctc	attgaagaat	gtgaacaagc	480
tgaacgactt	ggagcagtgg	atgaatctct	gagtgaggaa	acacagaagg	ctgttcttca	540
gtggaccaag	catgatgatt	cttcagataa	cttctgtgaa	gctgatgaca	ttcagtcccc	600
		tgcttcttaa				660
agatgcttgg	aaaatatgga	atgtcatcta	cgaagaaaac	tgttttaagc	cacagacaat	720
taaaagacct	ttaaatcctt	tggcttctgg	tcaagggaca	agtgaagaga	acacttttta	780
cagttggcta	gaaggtctct	gtgtagaaaa	aagagcattc	tacagactta	tatctggcct	840
acatgcaagc	attaatgtgc	atttgagtgc	aagatatctt	ttacaagaga	cctggttaga	900
aaagaaatgg	ggacacaaca	ttacagaatt	tcaacagcga	tttgatggaa	ttttgactga	960
aggagaaggt	ccaagaaggc	ttaagaactt	gtattttctc	tacttaatag	aactaagggc	1020
tttatccaaa	gtgttaccat	tcttcgagcg	cccagatttt	caactcttta	ctggaaataa	1080
aattcaggat	gaggaaaaca	aaatgttact	tctggaaata	cttcatgaaa	tcaagtcatt	1140
tcctttgcat	tttgatgaga	attcattttt	tgctggggat	aaaaaagaag	cacacaaact	1200
aaaggaggac	tttcgactgc	attttagaaa	tatttcaaga	attatggatt	gtgttggttg	1260
ttttaaatgt	cgtctgtggg	gaaagcttca	gactcagggt	ttgggcactg	ctctgaagat	1320
cttattttct	gagaaattga	tagcaaatat	gccagaaagt	ggacctagtt	atgaattcca	1380
tctaaccaga	caagaaatag	tatcattatt	caacgcattt	ggaagaattt	ctacaagtgt	1440
gaaagaatta	gaaaacttca	ggaacttgtt	acagaatatt	cattaaagaa	aacaagctga	1500
tatgtgcctg	tttctggaca	atggaggcga	aagagtggaa	tttcattcaa	aggcataata	1560
gcaatgacag	tcttaagcca	aacattttat	ataaagttgc	ttttgtaaag	gagaattata	1620
	taaacacatt	tttaaaaatt	gaaaaaaaaa	aaaaaaaaa	aaaaaaaaa	1680 1685
aaagg						1085
<210> 17						
<211> 2601						
<212> DNA						
<213> Homo	sapiens					
	-					

<sup>&</sup>lt;400> 17

```
ggcacgaggg caatcogggc ttgcagacga ggtaaggtcg attccatttg gcccggggat
                                                                        60
ggtcacacgc gegggggeeg gaactgeegt egeeggegeg gtegttgteg cattgetete
                                                                       120
ggccgcactc gcgctgtacg ggccgccact ggacgcagtt ttagaaagag cgttttcgct
                                                                       180
acgtaaagca cattcgataa aggatatgga aaatactttg cagctggtga gaaatatcat
                                                                       240
acctcctctg tcttccacaa agcacaaagg gcaagatgga agaataggcg tagttggagg
                                                                       300
ctqtcaqqaq tacactggag ccccatattt tgcagcaatc tcagctctca aagtgggcgc
                                                                       360
agacttgtcc cacgtgttct gtgccagtgc ggccgcacct gtgattaagg cctacagccc
                                                                       420
ggagctgatc gtccacccag ttcttgacag ccccaatgct gttcatgagg tggagaagtg
                                                                       480
gctgccccgg ctgcatgctc ttgtcgtagg acctggcttg ggtagagatg atgcgcttct
                                                                       540
cagaaatgtc cagggcattt tggaagtgtc aaaggccagg gacatccctg ttgtcatcga
                                                                       600
cgcggatggc ctgtggctgg tcgctcagca gccggccctc atccatggct accggaaggc
                                                                       660
tgtgctcact cccaaccacg tggagttcag cagactgtat gacgctgtgc tcagaggccc
                                                                       720
                                                                       780
tatggacage gatgacagee atggatetgt getaagacte ageeaageee tgggcaacgt
gacggtggtc cagaaaggag agcgcgacat cctctccaac ggccagcagg tgcttgtgtg
                                                                        840
cagccaggaa ggcagcagcc gcaggtgtgg agggcaaggg gacctcctgt cgggctccct
                                                                        900
gggcgtcctg gtacactggg cgctccttgc tggaccacag aaaacaaatg ggtccagccc
                                                                        960
totoctggtg googogtttg gogoctgoto totoaccagg cagtgcaacc accaagcott
                                                                      1020
ccagaagcac ggtcgctcca ccaccacctc cgacatgatc gccgaggtgg gggccgcctt
                                                                       1080
cagcaagctc tttgaaacct gagcccacgc agaccagaag taaacaggca ccttggacgg
                                                                       1140
gggagagcgt gtgtgtgatg ggaaaatccg gacccacgcg tgtgctgaag gcgtacggtg
                                                                       1200
cttgccagat tttcaacttg agcataaatt ggttgccatt gagaatttaa gaatctggaa
                                                                       1260
                                                                       1320
tattgcagct cttggttaaa cttaatgcat ggttggagat gttatggcga cactaaacaa
agtattcctg aactttcctt agctccttgg tagtaactgg gaagacagaa atgaagaaaa
                                                                       1380
tcacatgaga atgaagaatt ctttagcagc tcaacagagt ttctcggcct gctcccagat
                                                                       1440
cggcgaagtt tctacttgtt actctctctg ccgacgccct tcattccccc cgcttccctt
                                                                       1500
ccctagtett tecteeggea gggagetggg caggggteee egggtgtete eetgagteee
                                                                       1560
gactgcactg actgggtcca tcagagggct gcttcgttct ccagctcatc ttcttttaaa
                                                                       1620
gtggtgacta gcttggtggt atctggctgc tggtgtttgg cttattgaca tactccaggg
                                                                       1680
taatcaatga tgactttgtt tggaaaccct tttggaggca ccatgggaac agaaggaaac
                                                                       1740
                                                                       1800
atgagtgacg ctgacccttg agtgtgtggg tggggagctc tgagacgcct cctgtcccac
gctctccggt gtccgtgtct acacaggggt ccccatgata cccaccggcc ccagcagggc
                                                                       1860
agaccggacc ggggacgggc acggtgaagg gctgcagcct ggggtctgac gtggccccta
                                                                       1920
gtgctgtctc aggagaaggc tctggaggac ttgaggcatg ctgggcctgg tgcagtgatg
                                                                       1980
gcgctaagga gacccgggga aagacagtat cgtggtcacg tatgcttagg aagcagcaca
                                                                       2040
gctgtgtcct tagggatgtt cgcgtccagt aaagacactg gtaactgcgg tttcagccaa
                                                                       2100
cactetteat ggeagtgteg acctegggtt agettetgtt gtetttgtgg atggttttee
                                                                       2160
tggagcggcc tgacgttgac gtgttctctg gtcccatgtc ttagcggggc atggtacggt
                                                                       2220
ttcgtgcctg acgcgtgcat tagggtgttc tcttatactt tcagtagcgt ctttccacag
                                                                       2280
caagggccaa accetectgg trecetteag agterriting geergargar gaererraag
                                                                       2340
tgataccctg tgatgcagac atgccccaga tggattctac tttctttaaa actagggact
                                                                       2400
ttcaagatta aaaaaaagat tgtcactact aatttgacgc ctaacttcag aagcttcact
                                                                       2460
                                                                       2520
gtctacatgt gaacttttcc agaaaaactg tgccatggac atttttcctc tggggaatta
acatctaaat totggtaact attaaaagac agatctggtt aatttaaaaa aaaaaaaaa
                                                                       2580
                                                                       2601
aaaaaaaaa aaaaaaaaa a
<210> 18
<211> 2229
<212> DNA
```

```
<213> Homo sapiens
<220>
<221> SITE
<222> (570)
<223> n equals a,t,g, or c
<400> 18
```

	ctggctggta	tgattttaat	gataactggc	gtattggttc	gcaactggaa	cgcctctctc	120
	accgcgttcc	attacgggca	atgaaaaatg	gtgttacagg	caacagtgct	caggcttatg	180
	ttcgctggta	tcaaaatgag	cggcgtaagt	acggtgtctc	ctgggctttc	actgattttt	240
	ccgacagtaa	ccagcgtcat	gaagtctcac	ttgagggtca	ggaacgcatc	tggtcttcac	300
	catatttgat	tgtcgatttc	ctacccagtc	tgtattacga	acaaaataca	gaacacgata	360
	ccccatacta	caaccctata	aaaacgttcg	atattgttcc	ggcatttgag	gcaagccatt	420
					cagcgcaggt		480
	cctggcaaaa	acattatggc	acggatgtcg	tcacccaact	cggctacggg	caacgcatta	540
	gttggaatga	cgtgattgat	gctggcgcan	astacgctgg	gaaaaacgac	cttatgacgg	600
	tgacagagaa	cacaacttat	acgttgaatt	cgatatgaca	ttcagatttt	aaggataaat	660
	atgttacgta	atggaaataa	atatctcctg	atgctggtga	gtataattat	gctcaccgcg	720
	tgcattagcc	agtcaagaac	atcatttata	ccgccacagg	atcgcgaatc	tttactcgcc	780
	gagcaaccgt	ggccgcataa	tggttttgta	gcgatttcat	ggcataacgt	tgaagacgaa	840
	gctgccgacc	agcgttttat	gtcagtgcgg	acatcagcac	tgcgtgaaca	atttgcctgg	900
	ctgcgcgaga	acggttatca	accggtcagt	attgctcaaa	ttcgtgaagc	acatcgagga	960
	ggaaaaccgc	taccggaaaa	agctgtagtg	ctgacttttg	atgacggcta	ccagagtttt	1020
	tatacccgcg	tcttcccaat	tcttcaggcc	ttccagtggc	ctgctgtatg	ggcccccgtc	1080
٠					ttggcgatga		1140
-	cgagaatatt	ttgccacgtg	gcaacaagtg	cgagaagttg	cgcgttcccg	gctcgttgag	1200
	ctcgcttctc	atacatggaa	ttctcactac	ggtattcagg	ctaatgccac	cggcagctta	1260
					cacggtatga		1320
	gaataccggg	aaagaattcg	tctggatgct	gtaaaaatga	cggaatacct	gcgtacaaag	1380
	gttgaggtaa	atccacacgt	ttyyrtttgg	ccttatggcg	aagcgaatgg	catagcgata	1440
	gaggaattaa	aaaaactcgg	ttatgacatg	ttcttcaccc	ttgaatcagg	tttggcaaat	1500
	gcgtcgcaat	tggattccat	tccgcgggta	ttaatcgcca	ataatccctc	attaaaagag	1560
	tttgcccagc	aaattattac	cgtacaggaa	aaatcaccac	aacggataat	gcatatcgat	1620
	cttgattacg	tttatgacga	aaacctccag	caaatggatc	gcaatattga	tgtgctaatt	1680
	cagcgggtga	aagatatgca	aatatcaacc	gtgtatttgc	aggcatttgc	tgatcccgat	1740
	ggtgatgggc	tggtcaaaga	ggtctggttt	ccaaatcgtt	tgctaccaat	gaaagcagat	1800
	atttttagtc	gggttgcctg	gcaattacgt	acccgctcag	gtgtaaacat	ctatgcgtgg	1860
	atgccggtat	taagctggga	tttagatccc	acattaacgc	gagtaaaata	cttaccaaca	1920
	ggggagaaaa	aagcacaaat	tcatcctgaa	caatatcacc	gtctctctcc	tttcgatgac	1980
	agagtcagag	cacaagttgg	catgttatat	gaagatcttg	ccggacatgc	tgcttttgat	2040
	ggcatattgt	tccacgatga	tgctttgctt	tcagattatg	aagatgccag	tgcaccggct	2100
					gcgaaattcg		2160
	gagcaattta	aacagtgggc	ccgctttaaa	agtcgtgcgt	taactgactt	cactttagaa	2220
	cttagtgcg						2229
	<210> 19						
	<211> 1232						
	<212> DNA	,					
	<213> Homo	sapiens					
	400 70						
	<400> 19						
					acatggcgac		60
					gggtcgcgga		120
					attcaaagga		180
					aatcccgact		240 300
					aaatttggaa		360
					ttggcttagg		420
					catcttcaaa		420
					gttgcattag		540
					actgccgaga		600
					taaaagcagt		660
					attatactca		720
					tttagtctat agaggtttta		780
	30099agcca	aggagacggc	uguccaataa	uaaaycayaa	agaggeeeca	agggeagaac	730

```
840
aaccgtctcc atctttgcca atacagagga atctggaaaa gaaggcgcca aacagatatg
cacagatttc ttccaaagtc agagaaaact acttcaaaga agcccttctg aattctgtaa
tatggttgaa agtgtttttt tatttctgat tctttgagaa aattaaargc agagccaaac
                                                                        960
tgatatcttg tcagagttcg ctactgtact atttatgtta caacttagat taattagcat
                                                                       1020
aagatatata aaagetttat gtggteetgg aatgtaatga aatattgtgt etggaattgg
                                                                       1080
ttccttccgg tgggttcttg gtctcgctga cttcaagagt gaagccacag accctcgcgt
                                                                       1140
gagtgttaca gctcttaaag gtggcatcca gagttgtttg ttcctcccag taggttcgtg
                                                                       1200
                                                                       1232
gtctcgctga cttcaggagt gaagccgcag ac
<210> 20
<211> 1307
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (395)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (696)
<223> n equals a,t,g, or c
<400> 20
ggcacgagcg gtgcccagcc cctgtcccct ctgtcaaccc cctgtcgctt tggtgttggt
                                                                         60
ttcgttcccg tcttcagcaa aacgaccttg gaacctcaat gggggctgct ttgctttggg
                                                                        120
aggttcttgt tggtgggacc agagctttga caaacctcct gctccttggt ggcacctctc
                                                                        180
ctggaaggac gtcacaactc caggtgctca gactgcctgt ggcagcagaa ccagtgcctt
                                                                        240
tggcattttc ctcccacaat ggggaaggtg actttggcat tcttacaaac tcgtctctcg
                                                                        300
geetttetet eetgeettee acageetete gttteteete catetgtget tattaettga
                                                                        360
ggactgtgtc tgctccgtga gagctgcgtg ggcanggctg cagttgggtc caggtggtgt
                                                                        420
teagetgtge tgatgeetge cattgggtee teettagget etgtaagteg tgacageett
                                                                        480
catcagtgca atgtttgcag ggtaattctt aaacttttta gagggtggca ggtacatcag
                                                                        540
ttctttttga tatgaaaaca ttcatgtttc agacattgaa ttgagagctt ttaggggaag
                                                                        600
cataatggtt attgtcacta tcaacagtct aaaaagaaaa actgaggtct ttttaatctt
                                                                         660
                                                                        720
gattacagca ctcacggcat gcaccctact cagtgngggt gtcttcgatt gggggctttt
                                                                        780
ttttttttt tgcacttctg aggctagata tgtctggctg aagatttgat gtgggtcctc
cttaagctat gcgtcctgta ataataggta ctgtactggg ctctgtgtaa gtgtcgttgg
                                                                         840
                                                                         900
ggtaggacct atattttaat actgtcccta acaattcatt ttactagcga gaaatctttg
                                                                        960
atttcatttt atcctttgta attctagaca ctagattgta gtttagccat aactgatgtt
 ttttaaaaag ggatatattt tottgcacag ttgttcaaaa aagagacaag tttcagtoot
                                                                        1020
 caatgctgtc ctttgtttta caggtacaag ttttctagct cagacaaact atgaaaaact
                                                                        1080
gtagactatt ctcaaggtat taactcgcag accctctggg ggtaggggct gttttctaag
                                                                        1140
                                                                        1200
 ttacaggcag agtgggactg agatggtaca gtgtgcacag acaggtactg agctgacaga
                                                                        1260
 ctgggatttt ctgtactaaa atgttacttt gtatcaaaag ttaaacaggc tttagtacaa
                                                                        1307
 caaataaagg tcaatttctg taaaaaaaaa aaaaaaaaa aaaaaaa
 <210> 21
 <211> 1052
 <212> DNA
 <213> Homo sapiens
 <400> 21
                                                                          60
 ccacgcgtcc gcaaccaggt tcaagacgag taagaggaat gcaagttatc tttttccaaa
                                                                         120
 aagaattgtt ttcaatttaa ttaagtttta aattcgaaag gagaataatg gctcatgtaa
```

```
aatgtgggca titgcaaata agtaatatga ttgtgtgtgt gtctgtgggc atgtgtgtat
                                                                        180
gacagagaga gagggagaga gagacagaga gagagagtca gtggtcagtg tctgtggatt
                                                                        240
tggggacagg atatattatg atacatggtc ccctggttcc ttctttggag ttccttcttc
                                                                        300
ataggcacat catcagccta tattgacaaa caggtaaaga ttgttagaca aaaatctacc
                                                                        360
tattggggag aaaaattttt aaaaagatgt gaaagggaaa gaataaaaga gagtgaacaa
                                                                        420
tcaggcaaga gaggagaatt aagagaaaga cagcaaaagt caaatgaagc aggctgcatc
                                                                        480
                                                                        540
tatcagtcca ttatactcat ttaggggtgt aagtgtgctt ctctgaatct gagagagtca
                                                                        600
gagtotttta agaaaggaag aattoaagat tttgcaatat otattaggta taagaatgta
ttttttaaaa gttaagcaat tccaggcaac aacacatatc agatgcatgt tgtgggcaga
                                                                        660
gccagggtag caagcttagg gaatcactgc aaagaaaatt gtatgtggac tttgggtttg
                                                                        720
tacttgaggc aggtagacaa atatgtatga aactgtgttt gacataccta acaaaaatcc
                                                                        780
atcaatggga atttctccta ccacagcatt gcttcattgc tgacataaat gggacagaaa
                                                                        840
ggaaatettt ttttaaaaaa aaattaataa etagttaagg etaggatgga ataatgtgtg
                                                                        900
                                                                        960
gtgctctgcc ttgttccctg atgacatttc catttttcta aggaagaaat ctctattgat
ttagttttgc ctgattataa aagtaataca aatttctttc tcaaaaatgca tacaacaaat
                                                                       1020
                                                                       1052
aaaaattgat gaaaatcaaa aaaaaaaaaa aa
<210> 22
<211> 1645
<212> DNA
<213> Homo sapiens
<400> 22
ggcacgagcc gagccagctc ccgagacccc attcatctac cggctggagc ggcaggaagt
                                                                         60
gggctctgaa gactggattc agtgcttcag catcgagaaa gccggagccg tggaggtgcc
                                                                        120
                                                                        180
gggcgactgt gtgccctccg agggtgacta ccgcttccgc atctgcacag tcagcggaca
                                                                        240
tggccgtagt ccccacgtgg tgttccacgg ttctgctcac cttgtgccca cagctcgcct
ggtggcaggt ctggaggatg tgcaggtata cgacggggaa gatgccgtct tctccctcga
                                                                        300
                                                                        360
tototocaco atcatocagg gtacotggtt cottaatggg gaagagotoa agagtaacga
                                                                        420
gccggagggc caggtggaac ctggggccct gcggtaccgt atagagcaga agggtctgca
                                                                        480
gcacagactc atoctgcatg ccgtcaagca ccaggacagc ggtgccctgg tcggcttcag
                                                                        540
ctgccccggc gtgcaggact cagctgccct cacaatccaa gagagcccgg tgcacatcct
gagececcag gaeaaggtgt egttgaeett caeaacetea gagegggtgg tgetgaettg
                                                                        600
tgagetetea agggtggaet teeeggeaac etggtacaag gatgggeaga aggtggagga
                                                                        660
gagegagttg etggtggtga agatggatgg gegeaaacae egtetgatee tgeetgagge
                                                                        720
caaagtccag gacagtggcg agtttgagtg caggacagaa ggggtctcgg ccttcttcgg
                                                                        780
                                                                        840
cgtcactgtc caagatcctc ccgtgcacat cgtggacccc cgagaacatg tgttcgtgca
tgccataact tccgagtgtg tcatgctggc ctgtgaggtg gaccgagagg acgcccctgt
                                                                        900
                                                                        960
gcgttggtac aaggacgggc aggaggtgga ggagagtgac ttcgtggtgc tggagaatga
                                                                       1020
ggggccccat cgccgcctgg tgctgcccgc cacccatccc tcagacgggg gcgagtttca
                                                                       1080
gtgcgtcgct ggagatgagt gtgcctactt cactgtcacc atcacagacg tctcctcgtg
                                                                       1140
gatcgtgtat cccagcggca aggtgtatgt ggcagccgtg cgcctggagc gtgtggtgct
gacctgtgag ctatgccggc cctgggcaga ggtgcgctgg accaaggatg gagaggaggt
                                                                       1200
ggtggagage ecegegetge teetgeagaa ggaagaeaet gteegeegee tggtgetgee
                                                                       1260
cgctgtccag ctcgaggact ccggcgagta cttgtgtgaa attgacgatg agtcggcctc
                                                                       1320
cttcactgtc accgtcacag agtcttacca aagtcaggac agttcaaata acaatccgga
                                                                       1380
gttatgcgtc ctcttgaaaa agccgaagac ccggcggctc tggtcccgct tccccccatg
                                                                       1440
gcgacgaaca gctggcactg agtagcagct gcccccatag tttggggccc acattcctct
                                                                       1500
gtcccacctc cctgccattg ctttttgcct ctccccagac tgcttcagcc gctaacctaa
                                                                       1560
cctggcccct gtgggcattt gagtttgcga cccctgtgtt aaaccaataa acatgcaaat
                                                                       1620
                                                                       1645
aaatqtaaaa aaaaaaaaaa aaaaa
```

<sup>&</sup>lt;210> 23

<sup>&</sup>lt;211> 1770

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Homo sapiens

<400> 23 ggcacgagte tgaatacact acatetecaa aatettetgt tetetgeece aaactacea	g 60
ttccagcgag tgcacctatt ccattettee atcgetgtge teetgtgaac atttectge	t 120
atgccaagtt tgcagaggcc ctgatcacct ttgtcagtga caatagtgtc ttacacagg	
tgattagtgg agtaatgacc agcaaagaaa ttatattggg actttgcttg ttatcacta	
ttctatccat gattttgatg gtgataatca ggtatatatc aagagtactt gtgtggatc	_
taacgattet ggtcatacte ggttcacttg gaggcacagg tgtactatgg tggccgtat	
caaagcaaag aaggteteee aaagaaactg ttacteetga geagetteag atagetgaa	<del>-</del>
acaatottog ggoodtooto atttatgooa tttoagotac agtgttoaca gtgatotta	<b>J</b>
tectgataat gttggttatg egeaaaegtg ttgetettae categeettg ttecaegta	
ctggcaaggt cttcattcac ttgccactgc tagtcttcca accettctgg actttcttt	_
ctcttgtctt gttttgggtg tactggatca tgacacttct ttttcttggc actaccggo	_
gtcctgttca gaatgagcaa ggctttgtgg agttcaaaat ttctgggcct ctgcagtac	a 720
tgtggtggta ccatgtggtg ggcctgattt ggatcagtga atttattcta gcatgtcag	780 TC 780
agatgacagt ggcaggagct gtggtaacat actatttac tagggataaa aggaattt	
agalgacage ggcaggaget geggtaalat accattetat tagagatatat aggaracat	rg 900
catttacacc tattttggca tcagtaaatc gccttattcg ttaccaccta ggtacggtg	· •
caaaaggatc tttcattatc acattagtca aaattccgcg aatgatcctt atgtatatt	
acagtcagct caaaggaaag gaaaatgctt gtgcacgatg tgtgctgaaa tcttgcatt	:a 1080
gttgcctttg gtgtcttgaa aagtgcctaa attatttaaa tcagaatgca tacacagco	
cagetateaa eageaceaae ttetgeacet eageaaagga tgeettigte attetgg	a 1200
agaatgettt gegagtgget accateaaca eagtaggaga tittatgtta tieettgge	ig 1260
aggtgctgat agtctgcagc acaggtttag ctgggattat gctgctcaac taccagcag	ic 1320
actacacagt atgggtgctg cetetgatea tegtetgeet etttgettte etagaeget	
attgcttcct gtctatttat gaaatggtag tggatgtatt attcttgtgt tttgccatt	ig 1440
atacaaaata caatgatggg agccctggca gagaattcta tatggataaa gtgctgat	t 1500
agtttgtgga aaacagtagg aaagcaatga aagaagctgg taagggaggc gtcgctgat	q 1560
ccagagaget aaageegatg etgaagaaaa ggtgaetggt eteatgagee etgaagaat	_
aactcagagg aggttgttta catgaggttc tcccactcac cagctgttga gagtctgc	•
ttatgaagag caggatetta ttaetteaat gaaageatgt aacaagttte teaaaceae aacageecaa gtggatttgg tacagtgegg etgtetaata aataateaaa ageatttg	at 1740
	1770
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa	2,,,
<210> 24	
<211> 2105	
<212> DNA	
<213> Homo sapiens	
<400> 24	
ggcacgaggt tttttagata cccagaagct tgttctggga gaagctaggg tgggtcag	ag 60
tagacctgat gggtaactca ggtaaagatg cttttctttt	t 120
gctttacttt tactttttaa aaaaattcag aaatccaata aaggaaagga	t 180
atgatagaag gtgtggcatg tgttactgtt gggggaaagg agtatattga ctttgcct	g 240
gttgatattt ttatgcttgt ctaggatggg actagagtgt tgatagtaac atggcagc	st 300
tttgctggca gtgaaatgaa cttaagaagc tagggagtac tatcctagtc aaaactct	360 430
taatagtttt teetttgeag gaccaatett ataaagaaca geataeteag etttttae	t 420
agtgtcagtt gaggcatact ctcaaaagtt ttttccccta aaatatcttt caagttat	ta 480 to 540
ctggtatttg aaatttcaag tttagaaatt catttcttt taactcaaag tgcaaatt	600
atataatgat tatgatggtt ttagtgtcca tatttttgtg gcttcactta tcatctct	t 600 aa 660
cagcagtagc tacccacagt cagctcctag taaaatggct acaggaaaac tgaaagaa	ad 660 ad 720
gtttaagcot gagtaggcat agagtaaaaa atgcataatg atgcattatt aatataag	ag /20 ta 780
taaggetttt tttattttga gtateetaae tecaaaeeta gtgttetttt caeteeat	
tootgotgtt tatagcaaat caagacccat aatgatacgt otttoattta titoagtt	ta 900
gccaaggaaa gagaaaatac cttttaatcc cagggaaagg attgcaatca ccacatta	tt 960
aggtatatgg cgtggaatgc agaattctaa atactagaag ggaaaagtag ttggcaga	
- categorage thanceston etacttett constitues actataatta centere	rt 1020
catcagaggo ttaaggataa gtacttgttt ccaatttaaa agtataatta ggattgto taatgttoto tagaaatact ataattaato tagagatota tcaatggtoa catotoag	tt 1020

```
tttttcttcc ctgagattca aagacgtgta ataccaatac ttcagattcc tatagtatti
                                                                     1140
gggactttgt agactagtga atagatactt tgttgctagt ccaaatcctc tgattttggt
                                                                     1200
ttgatttgtc ctagcagatc cctgaacttc agagagtatt gccatttgga ttcatggagt
                                                                     1260
tggcgaactg ctacactgct accttgtgta tggctctaag ctttgatcct aatgactggt
                                                                     1320
tgatgatcat gataatatta gggccagtga atatagctca tagtgataat aaggattcta
                                                                     1380
gggtattttt ttttctttta gaaaaagatc ctggaagttt atttgatctg acatgttttt
                                                                     1440
                                                                     1500
gtaatattta gaaatagctc ttgtatcata aaaagttgcc cagtataaga cacacaagat
                                                                     1560
gtattttttt ctctggtgaa aatcatgcct atcactagta tatgtttgac atttgtagta
tacttaaaat agtattgggt gtgaggcatg gtggtgatga aaagtagtcc ttacggctac
                                                                     1620
                                                                     1680
ttqttaqtca ttaqaqaqaa catggagaag gggtcaaagt tggtatcatt aacagggcaa
tqacttqacc cttctttcaa ctqatcttac tggtagttgt ctctagtttt taagtaaatt
                                                                     1740
aatgatggac catcccccaa acagagaact atgggggtat gaaacaaggc tgaaggcttt
                                                                     1800
taaccatggg agaaaaaggt gttggtatta ttcatatagc ataacctgag gttggagagg
                                                                     1860
accacttggg agcctgtaac caaaactaga aggtaacttc tgggatggac ggaggttccc
                                                                     1920
ttgaagcagt gccaacctaa atctacctca ggtaagtagt tagattaact ttttcaagat
                                                                     1980
ttcagaccaa acaagacaac ttgtattcag ttgatgtatt cctatgcttt aatgtttttg
                                                                     2040
2100
                                                                     2105
<210> 25
<211> 4909
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (2488)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2493)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2512)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2523)
<223> n equals a,t,g, or c
<400> 25
gcgtccggtg gtggcggcgg cgcaagggtg agggcggccc cagaacccca ggtaggtaga
                                                                       60
gcaagaagat ggtgtttctg cccctcaaat ggtcccttgc aaccatgtca tttctacttt
                                                                      120
                                                                      180
cctcactgtt ggctctctta actgtgtcca ctccttcatg gtgtcagagc actgaagcat
                                                                      240
ctccaaaacg tagtgatggg acaccatttc cttggaataa aatacgactt cctgagtacg
                                                                      300
tcatcccagt tcattatgat ctcttgatcc atgcaaacct taccacgctg accttctggg
                                                                      360
gaaccacgaa agtagaaatc acagccagtc agcccaccag caccatcatc ctgcatagtc
accacctgca gatatctagg gccaccctca ggaagggagc tggagagagg ctatcggaag
                                                                      420
                                                                       480
aacccctgca ggtcctggaa caccccctc aggagcaaat tgcactgctg gctcccgagc
ccctccttgt cgggctcccg tacacagttg tcattcacta tgctggcaat ctttcggaga
                                                                      540
ctttccacgg attttacaaa agcacctaca gaaccaagga aggggaactg aggatactag
                                                                      600
catcaacaca atttgaaccc actgcagcta gaatggcctt tccctgcttt gatgaacctg
                                                                       660
ccttcaaagc aagtttctca atcaaaatta gaagagagcc aaggcaccta gccatctcca
                                                                      720
```

			ctgaaggact			780
tcactgtgaa	gatgagcacc	tatctggtgg	ccttcatcat	ttcagatttt	gagtctgtca	840
gcaagataac	caagagtgga	gtcaaggttt	ctgtttatgc	tgtgccagac	aagatgaatc	900
aagcagatta	tgcactggat	gctgcggtga	ctcttctaga	attttatgag	gattatttca	960
			ttgctgctat			1020
			gagaatctgc			1080
			caatgactgt			1140
			ggtggaatga			1200
ttaccasatt	tatogaget	atatatata	gtgtgaccca	tectgaactg	aaagttggag	1260
			tggaggtaga			1320
			agatccggga			1380
			taagggagta			1440
						1500
			atagctataa			1560
			cagatggtgt			1620
			cacattggca			
aaaccatgat	gaacacttgg	acactgcaga	ggggttttcc	cctaataacc	atcacagtga	1680
gggggaggaa	tgtacacatg	aagcaagagc	actacatgaa	gggctctgac	ageaceceaa	1740
acactgggta	cctgtggcat	gttccattga	cattcatcac	cagcaaatcc	gacatggtcc	1800
atcgattttt	gctaaaaaca	aaaacagatg	tgctcatcct	cccagaagag	gtggaatgga	1860
tcaaatttaa	tgtgggcatg	aatggctatt	acattgtgca	ttacgaggat	gatggatggg	1920
actctttgac	tggcctttta	aaaggaacac	acacagcagt	cagcagtaat	gatcgggcaa	1980
gtctcattaa	caatgcattt	cagctcgtca	gcattgggaa	gctgtccatt	gaaaaggcct	2040
tggatttatc	cctgtacttg	aaacatgaaa	ctgaaattat	gcccgtgttt	caaggtttga	2100
atgagctgat	tcctatgtat	aagttaatgg	agaaaagaga	tatgaatgaa	gtggaaactc	2160
aattcaaggc	cttcctcatc	aggctgctaa	gggacctcat	tgataagcag	acatggacag	2220
acgagggctc	agtctcagag	cgaatgctgc	ggagtgaact	actactcctc	gcctgtgtgc	2280
acaactatca	gccgtgcgta	cagagggcag	aaggctattt	cagaaagtgg	aaggaatcca	2340
atggaaactt	gagcctgcct	gtcgacgtga	ccttggcagt	gtttgctgtg	ggggcccaga	2400
gcacagaagg	ctqqqatttt	ctttatagta	aatatcagtt	ttctttgtcc	agtactgaga	2460
aaagccaaat	tgaatttgcc	ctctqcanac	ccnaaaataa	qqaaaagctt	cnatggctac	2520
			aaactcagga			2580
			tggcctggca			2640
acaaacttgt	acaaaaqttt	gaacttggct	catcttccat	agcccacatg	gtaatgggta	2700
caacaaatca	attctccaca	agaacacggc	ttgaagaggt	aaaaqqattc	ttcagctctt	2760
			tccaacagac			2820
			aaatcagagt			2880
ttgaacgtat	gtaaaaattc	ctcccttacc	aggttcctgt	tatctctaat	caccaacatt	2940
			ctgttttggc			3000
			tgaaaagaat			3060
			cacaggtgtt			3120
			gtaccttatt			3180
			cccatgttta			3240
			ctactgaaca			3300
ctaacccca	coatgacted	gaacagacga	tcccggctca	cccctccaga	cccactaccc	3360
			tgacttgtaa			3420
					tcggaggagg	3480
			cttgcgggat			3540
gaggaggagg	aggegeeee	cacacacatat	tttccacaca	gccttctcca	cctctggatt	3600
			gattagtggc			3660
			ataatgtgct			3720
			gtgtctgtca			3780
					tttcttaggg	3840
					ctaactaact	3900
						3960
			tgcagtcacc			4020
			aggacattct			4020
					tttatgtata	4140
					tcaagtcaag	4140
ccagttaata	ccccaagaat	Layactttat	LLCLLALLCE	gaaaacttgc	tacacaggga	4200

cttatctaac	ccataqtqtq	ctctqttqct	gacttgattc	aagttgcagc	gtgttttgcg	4260
			tggcaaagga			4320
			aatatgattg			4380
			atagagtgac			4440
			taggtataaa			4500
			aaatagaaat			4560
			tacacaacca			4620
			atgaaacatg			4680
			ttttggaaaa			4740
			ttttgataat			4800
			aaaaaaaaaa			4860
			aaaaaaaaa			4909
						10.00
<210> 26						
<211> 2916						
<212> DNA						
<213> Homo	sapiens					
<400> 26	•					
			agtcctagag			60
tcccatttac	ccgacccgac	gccggcgtga	tgtggcttcc	gctggtgctg	ctcctggctg	120
tgctgctgct	ggccgtcctc	tgcaaagttt	acttgggact	attctctggc	agctccccga	180
atcctttctc	cgaagatgtc	aaacggcccc	cagcgcccct	ggtaactgac	aaggaggcca	240
			acattgggcg			300
			ggcagctgga			360
cttttgacat	catggtactg	gaagggccca	atggccgaaa	ggagtacccc	atgtacagtg	420
gagagaaagc	ctacattcag	ggcctcaagg	agaagtttcc	acaggaggaa	gctatcattg	480
acaagtatat	aaagctggtt	aaggtggtat	ccagtggagc	ccctcatgcc	atcctgttga	540
aattcctccc	attgcccgtg	gttcagctcc	tcgacaggtg	tgggctgctg	actcgtttct	600
ctccattcct	tcaagcatcc	acccagagcc	tggctgaggt	cctgcagcag	ctgggggcct	660
cctctgagct	ccaggcagta	ctcagctaca	tcttccccac	ttacggtgtc	acccccaacc	720
			tcaaccacta			780
			acaccatccc			840
			gtgtgttgct			900
			tggtgaacat			960
			acctactgcc			1020
			ggcccggctt			1080
			atctgccgtc			1140
			gctacgtctc			1200
			tcccatcagc			1260
_		-	tgctcatacc	_		1320 1380
			ggggcagtga			
			tgaaactgtt			1440 1500
			ccaaccagtt			1560
			gccgcctgca			1620
			atctgacagg			1680
			tgtgcagcag ggatccgggc			1740
						1800
			caatggctgg cgtataaagc			1860
			tccgaatctg			1920
			tttataacat			1980
			gagcggcgct			2040
			atctgtggat			2100
			tgaggettet			2160
			aagggagact			2220
			gtttggagag			2280
222 * * * 22	555		5 55 555	3.2.2	J-J	

```
gggttcagtg gctcttcagg ggacaggaaa tgcctgtgtc tggccagtgt ggttctggag
                                                                       2340
ctttggggta acagcaggat ccatcagtta gtagggtgca tgtcagatga tcatatccaa
                                                                       2400
ttcatatgga agtcccgggt ctgtcttcct tatcatcggg gtggcagctg gttctcaatg
                                                                       2460
tgccagcagg gactcagtac ctgagcctca atcaagcctt atccaccaaa tacacaggga
                                                                       2520
                                                                       2580
agggtgatgc agggaagggt gacatcagga gtcagggcat ggactggtaa gatgaatact
                                                                       2640
ttgctgggct gaagcaggct gcagggcatt ccagccaagg gcacagcagg ggacagtgca
gggaggtgtg gggtaaggga gggaagtcac atcagaaaag ggaaagccac ggaatgtgtg
                                                                       2700
                                                                       2760
tgaagcccag aaatggcatt tgcagttaat tagcacatgt gagggttaga caggtaggtg
aatgcaagct caaggtttgg aaaaatgact tttcagttat gtctttggta tcagacatac
                                                                       2820
                                                                       2880
gaaaggtoto titigtagtio gigttaatgt aacattaata aatttatiga ticcattgot
                                                                       2916
ttaaaaaaaa aaaaaaaaaa aaaaaaaa aaaaaa
<210> 27
<211> 1257
<212> DNA
<213> Homo sapiens
<400> 27
                                                                         60
eggetgtttg getgetgaca acatgaagae tteetgegat gagaacagag geacaggtge
cggccctaca gcccccagaa cctggactgg agggggccat ggggcaccgg accctggtcc
                                                                        120
                                                                        180
tgccctgggt gctgctgacc ttgtgtgtca ctgcggggac cccggaggtg tgggttcaag
tteggatgga ggecaecgag etetegteet teaceateeg ttgtgggtte etggggtetg
                                                                        240
getecatete cetggtgaet gtgagetggg ggggeeegga eggtgetggg gggaeeaege
                                                                        300
                                                                        360
tggctgtgtt gcacccagaa cgtggcatcc ggcaatgggc ccctgctcgc caggcccgct
                                                                        420
gggaaaccca gagcagcatc tctctcatcc tggaaggctc tgggggccagc agcccctgcg
                                                                        480
ccaacaccac cttctgctgc aagtttgcgt ccttccctga gggctcctgg gaggcctgtg
                                                                        540
ggagectece geocagetea gacceaggge tetetgeece geogaetect geocceatte
tgegggeaga cetggeeggg atettggggg teteaggagt ceteetett ggetgtgtet
                                                                        600
                                                                        660
acctecttea tetgetgege egacataage accgeeetge eectaggete cageegteee
gcaccagece ecaggeaceg agageacegag catgggeace aagecaggee teccaggetg
                                                                        720
ctcttcacgt cccttatgcc actatcaaca ccagctgccg cccagctact ttggacacag
                                                                        780
ctcaccccca tggggggccg tcctggtggg cgtcactccc cacccacgct gcacaccggc
                                                                        840
cccagggccc tgccgcctgg gcctccacac ccatccctgc acgtggcagc tttgtctctg
                                                                        900
                                                                        960
ttgagaatgg actctacgct caggcagggg agaggcctcc tcacactggt cccggcctca
                                                                       1020
ctcttttccc tgaccctcgg gggcccaggg ccatggaagg acccttagga gttcgatgag
agagaccatg aggccactgg gctttccccc tcccaggcct cctgggtgtc atccccttac
                                                                       1080
tttaattott gggcotocaa taagtgtooc ataggtgtot ggccaggcoc acctgctgcg
                                                                       1140
gatgtggtct gtgtgcgtgt gtgggcacag gtgtgagtgt gtgagtgaca gttaccccat
                                                                       1200
ttcagtcatt tcctgctgca actaagtcag caacacagtt tctctgaaaa aaaaaag
                                                                       1257
<210> 28
<211> 1181
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (903)
<223> n equals a,t,g, or c
<400> 28
gggtgggcc ccgggccgag gcgatggcgc cctgggcgct cctcagccct ggggtcctgg
                                                                         60
tgcggaccgg gcacaccgtg ctgacctggg gaatcacgct ggtgctcttc ctgcacgata
                                                                        120
ccgagctgcg gcaatgggag gagcaggggg agctgctcct gcccctcacc ttcctgctcc
                                                                        180
tgqtgctgqq ctccctqctq ctctacctcq ctgtgtcact catggaccct ggctacgtga
                                                                        240
```

atgtgcagcc ccagcctcag gaggagctca aagaggagca gacagccatg gttcctccag

```
360
ccatccctct teggegetge agatactgee tggtgetgea geceetgagg geteggeaet
                                                                        420
geogtgagtg eegeegttge gteegeeget aegaceacea etgeeeetgg atggagaaet
                                                                        480
gtgtgggaga gcgcaaccac ccactctttg tggtctacct ggcgctgcag ctggtggtgc
ttctgtgggg cctgtacctg gcatggtcag gcctccggtt cttccagccc tggggtctgt
                                                                        540
ggttgcggtc cagcgggctc ctgttcgcca ccttcctgct gctgtccctc ttctcgttgg
                                                                        600
tggccagect getectegte tegeacetet acetggtgge cageaacace aceaeetggg
                                                                        660
aattcatctc ctcacaccgc atcgcctatc tccgccagcg ccccagcaac cccttcgacc
                                                                        720
gaggeetgae eegeaacetg geceacttet tetgtggatg geceteaggg teetgggaga
                                                                        780
                                                                        840
ccctctqqqc tgaggaggag gaagaggca gcagcccagc tgtttagggt tgctggaggc
                                                                        900
egggetaceg tettgtgeet gaaaaceaeg gggeetgtee ceagetgggg tgagegetea
                                                                        960
qanqqcetqq qqccctcact cetgeccacg ceteccagac cecagaacgg agettcaagt
                                                                       1020
cagacagate cetgeettgg tgggeagtte tgeetteeaa ggaagaaggg gaagaaaagg
acctgtgggt ggctcaggcc caagcagacc ccgggctcca ccccagcccc gcccaggctg
ctgccagtgc acacttttac aaatttaata taaagcaagt ccagtcttaa aaagacaaaa
                                                                       1140
                                                                       1181
aaaaaaaaa aaaaaaaaa aaaaaaaaa agggcggccg c
<210> 29
<211> 1524
<212> DNA
<213> Homo sapiens
<400> 29
                                                                         60
ggcacgagaa ggagctgggg gatgtgcagg gccacggcag ggtggtcacc agcagagccg
cccctccacc tgtggatgaa gagccagagt cctctgaggt cgatgctgct ggtcggtggc
                                                                        120
ctggtgtctg tgttagcaga acatctccaa caccccaga gtcggcaacc accgttaagt
                                                                        180
cacttatcaa gtcatttgac ttgggacgcc caggtggagc tggacagaat atttctgtcc
                                                                        240
                                                                        300
ataagacccc cagaagtccc ctaagtggga taccagtgag gactgctcca gcagctgctg
                                                                        360
tototocaat goagaggoat togacttaca goagtgtgcg gocagcoago agaggggtga
ctcaacgctt ggaccttcct gaccttcccc tctcagatat tctaaaggga aggactgaga
                                                                        420
                                                                        480
ccctgaagcc agacccccac ctccgcaaga gtccctcact agagtcactg agcagacccc
cgtctctggg ctttggggac acaagactgc tgagtgcttc cacccgggca tggaaaccac
                                                                        540
aaagcaaact cagtgtggaa agaaaagacc ctctggcggc cttggcccgg gaatacggtg
                                                                        600
gttccaagcg caatgctcta ctgaaatggt gccagaagaa gacacaaggt tatgcgaaga
                                                                        660
                                                                        720
ggaatctctt gttggcattt gaagcggctg aaagtgtagg catcaaaccc agcctggaac
tcagcgagat gctgtacaca gaccggcccg actggcagag tgtgatgcag tacgtggccc
                                                                        780
aaatctacaa gtactttgag acgtaaccct ggagggcctg gggcagccac cattgccacc
                                                                        840
                                                                        900
tactgcagct tttcctggaa gcgcctgatt actgtccact gaccctgctc tgcccaccac
                                                                        960
ccagctgcct agacttcaaa gacaggctca atccaagtgg accaacaccc aaataagaaa
                                                                       1020
cagagtgggt cocacgatgt acctgtctga aatgcaaatg cagctggact gtaaattggg
gactetttga tetettgtgg gatgetteta aagagggeag eeteeeteet teeagaceaa
                                                                       1080
                                                                       1140
gaccccacac ccaggettgt tttgctgatt atattgggtg gctgaacgaa cacattatet
                                                                       1200
gcagaaattc agacaaagaa catctccaaa tcagtctttt ggttgctgtt gttaaaaata
tcccggcttt gcctttatga aacctttgcc cttggctggg tgtggtagct cgtggctgta
                                                                       1260
atcccagcac tttaggaagc caaggcagta ggatcgtttg agcccaggag ttcgaggctg
                                                                       1320
                                                                       1380
cagtgageta tgageatace actgeactee ageetgtgtg aaagageeag accetgtete
aaaaaaatga taaaacccaa aactttgccc ttgtgaaccc tcccttcccc cctcccccc
                                                                       1440
                                                                       1500
cccaaaaaaa aacaacaaaa cacaaaaaat aaacatttgt tccagggcaa cctggaaaaa
                                                                       1524
aaaaaaaaa aaaaaaaaaa aaaa
<210> 30
<211> 1597
<212> DNA
<213> Homo sapiens
<400> 30
tacgccgtgc aggtaccggt ccggaattcc cgggtcgacc cacgcgtccg cctgcctgca
```

```
gtaaaccact gcctgaaccg tgttcctagg tggtgctgat gctgggctgt ctcaaaagcc
cttagtctgt ttcaaagctt cctgccaatg gcaagaatgt ggatgatgtg attagaaatc
                                                                        180
aaatgaatgt aactgttaca ttgccaaaat accatttagc tctcatttgg ctgctttttc
                                                                        240
                                                                        300
actttgggtg ggcattatta tcagtttgct caaaaacagt gcttatgaat ctatccaatg
                                                                        360
tccacaatqc tqttataqqa taaaaqscca tttcttatta gtccaaataa cagagtggga
gacttttatt cttttaattg attgtgaggt tctaaaagag ataattgtaa aagcaacaac
                                                                        420
aacagcaaca gcaatcatgg ctgtatgctt atttgaacaa gactagaaat gagagcagaa
                                                                        480
atttgaaaag ttaaagtatt tgaatgacca ccagatggca gtgtggggcc acctggaagc
                                                                        540
                                                                        600
tgaagccaaa gtcgtggttc tgtctctcta ggcagcctct gaaagtgtca gccccaaaga
ggcaattgct gtaaatgtat aaggctaaag tatcttatta aatgattata aaatatattt
                                                                        660
                                                                        720
aaatqcattt taaaaatqaa gttcataaga attattttag gaaactgaaa ggtttacatt
tactictaata caaaatttta goocacaagt ottoaaaata taattaacto agagaagtot
                                                                        780
cataaatcaa gacagagaat taatgaccac atagagaaaa tttaagaaac aataattgat
                                                                        840
ttttttaata gggaagagat cattaagcaa ccacagccat tacccaaata attatttttc
                                                                        900
tcctaatggc tacaaccatt gtgcatgaaa atgatatgca taagtttcac ttactctaga
                                                                        960
agaagtcaaa ctattttcac aaaatttctg cgtgttaagg tgaaaaatct gctgctgctt
                                                                       1020
tttaatacat cgtgacacag gtatggcaag cgaattcaca aggtaatacc agagtatttt
                                                                       1080
ggggtgtaaa aagagaaatc cattttaaag tttgagaatt cttagtttaa aatatactac
                                                                       1140
aagaacgagc ctctttatcc ctgctctgcc cctgtcatag tgggagaatg tgccacaaag
                                                                       1200
gccatattaa tgagaggact ggaaagaaca caaggagata caaaacttca agtcagtgaa
                                                                       1260
aaagttacat gttacatggg attttggtaa attcaatgtt ctttcccttt ttccctctag
                                                                       1320
aatcacaatt tcaaagatgc tttaatttcc tccctccctc cctgcctccc tcccttcctt
                                                                       1380
                                                                       1440
cettettece tecettaett tettetgete tittetigitt tgatttaeet ccaagtggca
gtaagtgcta gctagcattt aaattctcta cttgggtgtt ttatattaag ttatttcatt
                                                                       1500
taattatatc tattcagtga attagttatg attactggta ataataatgt taataaaatc
                                                                       1560
                                                                       1597
aattttatga caaaaaaaaa aaaaaaaggg cggccgc
<210> 31
<211> 1759
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (618)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1095)
<223> n equals a,t,g, or c
<400> 31
ggttgttttg ttttgctttt tgaaagtgtg gtccaagaac cacctgaatc agactcactt
                                                                          60
ggatgtagtt aaaaagcgca gatccctaag gccccttcag acctaatagt cagaaacact
                                                                         120
ggggetggag eccagaetge acceeteece eegeceegee eegeceagga teeetggtga
                                                                         180
ttcctgtgca tatcgaagtt tgaaaagcat gcttttcctt gaaattaaga gacagtgaac
                                                                         240
ccagttgtct gcaaagagat aggggacaga aacttacatg tacctaggac gaagatggtt
                                                                         300
ctttctgtac ctttgtccct tcccttcatc tgcactgccc accttctgtg cccttttgca
                                                                         360
                                                                         420
tgctcacaca tccttctgta tgatcaacgg acttgggcac gctgcacact ccttggctta
tgaaactttc acactgtcag cagagggcgc cagagaccct ccaaaagcca cggaatgctc
                                                                         480
                                                                         540
catttgctcg ttgccctcct tttgcattcc aggettttgc attctattct aggeatctag
                                                                         600
ttttccaggy ttaggyctgt ccccacctc actgattctc aaagggacat tggatctcag
                                                                         660
gagagtgcac agcttctnag aaacgcactt attgtggggc ctggaaattt atttaatgcc
                                                                         720
tctgagccca aatttcacat cctaacaagg aactaattta ttagcctgtt actgtagttc
                                                                         780
ttttaatggt taaatgaggt aacaggtgaa tgtgcccatg aaggtcagca gcccagtgac
tgccagcacc ctgccactgc caccactggt gcaagtgtaa gcatggacac tggcaaccct
                                                                         840
```

tgctggtacc acacgtgagt acccwtcaga gttcccawty agagtccacc agtcaactga gcaaagaaaa cacacagata cttacctcca cagaaaaaga aagttgaaac atgaaatggc agaatttcat	ccaaccccrc gagcacagat gggttgtggc tyamnggggc aggagtgctg acctacctta aaacatgcat agaaggaatc aatgaccaca attcagatta ccaatccaag attttgagga aatacaatca gaagcccagt	caaggcataa cctgctgcca taatggacca cagatacaaa agctgagccg taccgcaatg cgaaaggaca agcacaagaa caagttcccc ccgacaggaa gaatctaagg agaaccaaac cgaatattaa	gcaccctgcg ccgscccaaa ggaacamyyt gctggggkcc tggccctaa aaaccccaa gcaacttcag ctctggcaac agcaatggtc cagagaacat aatataataa tgatctgata cagcagaatc	gaatgcagca gcgctgccac gaagcacttt tggmccytyt tggtaccact aatcttccag ggcagcaaa aggttgaggg tcaaaatgcc cctacctggg tatcattgac aacaatacag gacctgaaaa aaccaagctg aaagaaaaaa	aggtgccaga gtctggcmcc gwtgcagcag ycccagactt aaatgaaccc gaagagaaaa aacatcatcc agawtgtttt gctgaaatga atccaggaga gagataacat actcacttca aggaaagaat	900 960 1020 1080 1140 1200 1320 1380 1440 1500 1560 1620 1680 1740 1759
<210> 32 <211> 2100 <212> DNA <213> Homo	sapiens	-				
-400- 33						
<400> 32	ctacaaaaaa	atracasacr	tactacttac	agttggttcc	tataagagca	60
aaactctatc	agtaggagtag	cagcaacatt	ccttcagctt	ggcagcagca	attettteag	120
gatgtgacaa	actgaataca	acttatagta	tacagtttac	acgtatcagc	gtgaccctct	180
accacacaca	ctcatttccc	tttcagagat	ctactcctac	ttcatgggcc	tcttccccaa	240
gcttctaagt	ttaatatttc	agattgttta	tttccttccc	tcagctctag	agatgacagt	300
tocttcaccc	agttgccact	tctgtgatgc	cttagagtct	ctctttttct	ctaattaaca	360
aaatgtatac	ttagttaaca	attatttatq	gtactttctc	tctgttcaaa	taacttcttc	420
ctgactacat	cctaactaac	agagagagaa	taggatgatt	ccacttgtgc	tgttcaatgt	480
agtagettet	actcactttq	gttacttaga	totaaattta	gttaattaaa	cataaataaa	540
atataaaaac	totttctcag	ttacactagt	cacatttcaa	gcactcaata	gccacacgtg	600
actactaact	actotattog	acagtggaga	tacagaacgt	ttctgtcatc	acqtaaaqtt	660
ccatcagaga	atactagact	agaggaatga	agagttetta	aggtggaggg	gaaatatgag	720
taaaagaact	tcattagaac	caggaaatga	aatacaagag	actcagcatg	agcttcctca	780
agaaaagaga	acatatatat	atatatattt	gcatacatat	atatgttatt	ttcattqctq	840
atgttaagac	agagacagca	aaacctagca	cttttagtca	ttagcataat	cacaaaattq	900
aaaaatatag	trtctctgat	cacagtgctg	ttaaaatccc	atatatttaa	aaattaatga	960
tatgataaaa	ttatagtgaa	atattgcata	aataaagtag	ttataaataa	agtagtcctt	1020
agaggacatt	tagageetta	actaaatatt	tcagaaaaga	tgaaggtgca	attagaaatt	1080
tatqtqtcca	gctcaagaag	ttagaaaaag	aacaaaaagt	gaaatacgaa	gatggcagaa	1140
actttagaaa	atcagaaaga	taccataaat	taattagaca	tcaaagatag	aagaaaatac	1200
				gtaagctcct		1260
atqaqqaaaa	aataqaqaaq	gcacaaataa	tgtcagtaaa	taaccataga	actgatagag	1320
atgagaaagg	taaqatattt	ttaacaaccc	aagtccaata	aacttggaaa	tttagaagaa	1380
atggacctat	ttctagaaaa	aaatttacca	aactggcctt	aaaaaagtag	agtatgtaag	1440
tqqttcttta	agtattaaac	aattggttca	tatttgaata	cttcgttcaa	agataacttc	1500
aggeteacat	agcttcacta	ttgagttctg	tcccatttt	taaaaaggct	taatggccat	1560
catttacaaa	ttcttccaaa	aaatagtaat	aggggaacaa	tcagccatct	cattttatga	1620
tgttctccaa	actttgattt	taaaaccaga	caaaggaaga	aaaattacag	gacaatctca	1680
catattaaca	atggtccaaa	actcctaaac	aaaataatcc	ctaaccaaat	ataacaatat	1740
				agattagttt		1800
cataaaccaa	tgtagtccat	cacattaaaa	aacaaaagat	aaaaatatta	taaatatata	1860
aaataatttg	agaaaattta	tgattaaaaa	ttcttagtat	agatagttta	tatagaaaaa	1920
					tatgtaaaag	1980
taaaatagta	agaactttgc	ctttgagatt	aggaacaagt	aaagcttgcc	caatttactg	2040

```
<210> 34
<211> 409
```

<sup>&</sup>lt;212> DNA

```
<213> Homo sapiens
<220>
<221> SITE
<222> (291)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (345)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (349)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (390)
<223> n equals a,t,g, or c
<400> 34
gaatteggea gagetgaaaa gtteeaaace etttagtagt caceteaate cateetaete
                                                                         60
tegeceaact ceagatagee actegtagee acteatecte ttgetgtett tategatttt
                                                                         120
ccaattctgg acatttcata tcaatggaat catacaacat gggacatttt gcgcctggcg
                                                                        180
tettteaett gggcataatg tteacaggge teatecetgt tgtagtgtge ageageeetg
                                                                        240
cattccttcc tgttgctgaa tacttaatcc actgtgtggg tattcatcat ntattagttg
                                                                        300
atgggacatt tggggttgtt ttccaccttt tggtaatgat ggggnaatna ccgcaacaaa
                                                                        360
cattcgtgtt acaaagtttt gcggtggcan ggggtcgttt tttcttggg
                                                                        409
<210> 35
<211> 3466
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (3462)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (3466)
<223> n equals a,t,g, or c
<400> 35
acatgaacga ggttgcaagt tagatgttaa gtagatcctc tccctgtgtt ttcacctggg
                                                                         60
aatgctgggt tggtagtaat cctccccaga tgtggaggac tgaagagggg skggccttgg
                                                                        120
ggggggtgtg gttctggtct gctcagcgca tggactgttc cctgtgtgtc tqtqcqtqcc
                                                                        180
tgcaattggg ggtggtgtcc aggggctcag caaggcatgt acacctgggc tggggtgtgt
                                                                        240
cagacgctgt cagtgacaag caccttccct cagagcccgg ttcctggaga atgtggcggc
                                                                        300
agcagaaaca gagaagcagg ttgcgctggc ccagggccgg gcagagacac ttgccggggc
                                                                        360
catgcccaat gaggcgggtg gacacccagg tgagtaggtg ggtgagcagg cagagcctgc
                                                                        420
ctgttgyttt gttgccccac agggggcatg gcaytgacag ctccttccct ttctttagat
                                                                        480
gcccggcaac tctgggactc cccagagaca gcccctgcag ccagaacacc ccagagccct
                                                                        540
geoccetyty teetgeteeg ggeocagega ageettycae cagageccaa ggagecaety
                                                                        600
```

				ctacccgtgc		660
tctattgggg	acctggactt	ttcagatcta	ggggaggatg	aagaccagga	catgctgaat	720
gtagagtctg	tggaggctgg	gaaagacatc	ccagctccct	cacccccact	gcccctgctc	780
tcgggagtac	cccccctcc	cccacttcca	cctcccccac	ccatcaaagg	ccccttccca	840
ccacctccac	ctctacctct	ggctgcccct	cttccccatt	cagtgcctga	cagctcagcc	900
ctccccacta	agaggaagac	agtaaaactt	ttctggcgtg	agctgaagct	ggctgggggc	960
				tctgggcttc		1020
gtctcagtgg	acacggcccg	actggaacac	ctctttgagt	ctcgtgccaa	agaggtgctg	1080
				cagtgctgga		1140
				tgcatgtcat		1200
				ttgagaagct		1260
atgcccacgg	aggaagagcg	gcagaagatt	gaggaagccc	agctggccaa	ccctgacata	1320
				ccattggcgg		1380
				tggagcggga		1440
				agaatgccac		1500
				gctcccagag		1560
				cggtgcgtcg		1620
				agtcctctga		1680
				gccagaatca		1740
gacaaggcat	gaggagcgct	gcttcctggg	cctggctcct	cccccttctc	cccatttggg	1800
				tatgccctct		1860
				gggtctgttt		1920
tcccccagta	aaccttctgc	tccccattca-	catcagatgg	acttgtgtct	cttgcactag	1980
				ggccactctg		2040
				gtatgtgcac		2100
tctcaggtgg	actttgaaca	gctgactgag	aacctggggc	agctggagcg	ccggagccgg	2160
				tggccccagc		2220
cgcctcaccc	acttcctgga	ccagtgtgcc	cgccgtgttg-	ccatgctaag	gatagtgcac	2280
				tgggctacac		2340
gcccgtgaag	tgcgcatcat	gcagttctgc	cacacgctgc	gggaatttgc	gcttgagtat	2400
				aggccacata		2460
				ttccaggtct		2520
tgccacctcc	ttggtttcct	tagataataa	cagctcaccc	ttcttctttc	tccagacaga	2580
				tctgtcccag		2640
				atgaagagtc		2700
				atggtccaga		2760
aatcatgccc	acagtggggc	cctccactgc	atccccagaa	gaacccccag	gctccagttt	2820
acccagtgat	acatcagatg	agatcatgga	ccttctggtg	cagtcagtga	ccaagagcag	2880
				ggcaaccgca		2940
				accccctcca		3000
				atgacctggt		3060
				gtatcccgga	_	3120
				gcccagagca		3180
		_		tagccgtgtg		3240
				tgcatgtgtg		3300
			_	aaaaaaaaa		3360
				aaaaaaaaa	aaaaaaaaa	3420
aaaaaaaaa	aaaaaaaaa	aaaaaaaaa	aaaaaaaaa	gngggn		3466
<210> 36						
<211> 3468						
<211> 3466 <212> DNA						
<213> Homo	saniene					
-2137 INCHIO	paprens					

<sup>&</sup>lt;400> 36

ggcacgagca	aatatggtga	tcagcacagt	gcggctggaa	gaaatgggaa	accaaaagtt	60
attgctgtca	ctagaagtac	ttcctcaact	tcttctaatt	ctaattctaa	taccttaatt	120

cctgttagtt ggaaaaggcc acagttatca cagcgaagaa caagagaaaa gctaatgaat 180 gtgctttctc tctgtggtcc agaatctggc ctcccaaaga acccatcagt tgtatttct 240 tctaatgagg atttggaagt cggtgaccaa cagactagcc taatttctac aacagaagac 300 ataaatcaag aggaagaagt agctgtggaa gataatagca gtgaacaaca gtttggtgtt 360 tttaaggatt ttgacttttt agatgttgaa ttggaagatg cagagggtga aagtatggac 420 aatttcaact ggggagttcg caggcgctca ctggacagta ttgacaaagg ggacactcca 480 tecetecagg agtaccagtg etetagtage acceecagee tgaaceteae caatcaggag 540 gatacagatg agtcctcgga agaagaagcg gcacttacag caagccagat actctcacgc 600 acacagatgt taaacagtga ttctgccact gatgaaacaa taccagacca tcctgactta 660 cttctccagt ctgaagattc cactggcagc atcacaacag aggaagtgct tcaaatcagg 720 gatgagaccc caactttgga ggcttctcta gataatgcta acagccggct gcctgaggat 780 acaacttcag tattaaagga ggaacatgtt acaacctttg aagatgaagg atcctatata 840 attcaagaac agcaggaatc tcttgtgtgt caaggaattc ttgatttaga agaaactgaa 900 atgccagage etetagetee tgaaagttae eeegagteag tetgtgaaga ggatgttaee 960 ttagctctga aagagctaga tgaaagatgt gaagaagaag aagcggattt ctccggactg 1020 tctagtcaag atgaagaaga gcaagatggt tttccagaag tacagacgtc gcctctgccg 1080 tcaccatttc tttctgccat catagoogcc tttcagoocg tggcatatga tgatgaagag 1140 gaagcctggc gctgccacgt caatcagatg ctgtctgaca ccgacgggtc ctctgcagtg 1200 tttacttttc atgtgttttc taggctgttt cagacaattc aaagaaagtt tggagaaata 1260 actaatgagg cagtcagctt tcttggtgat agtctgcaac gcattggtac caaatttaaa 1320 agttccttgg aagtgatgat gctgtgttca gaatgcccaa cagtctttgt ggatgctgaa 1380 acactgatgt catgtggttt gctggaaaca ctcaagtttg gtgttttgga gttgcaagaa 1440 cacctggata catacaatgt gaaaagagaa gccgctgagc agtggctaga tgattgtaag 1500 aggacatttg gtgccaaaga agacatgtat aggataaaca cagatgcaca agaattggag 1560 ctctgccgaa gattatacaa attgcatttt caattgctgc ttctgttcca ggcctactgt 1620 aaacttatca accaagtaaa tacgataaaa aatgaagcag aggtcatcaa catgtcagag 1680 gaacttgccc aactggaaag tatcctcaaa gaagctgagt ccgcttccga aaacgaagaa 1740 attgacattt ccaaagctgc acaaactact atagaaactg ccattcattc tttaattgaa 1800 actttgaaaa ataaagaatt tatatcagct gtagcacaag tcaaagcttt cagatctctc 1860 tggcccagtg atatctttgg cagttgtgaa gatgaccctg tacagacact gatacatata 1920 tatttccatc atcagacgct gggccagaca ggaagctttg cagttatagg ctctaacctg 1980 gacatgtcag aagccaacta caaactgatg gaacttaatc tggaaataag agagtctcta 2040 cgcatggtgc aatcatacca acttctagca caggccaaac caatgggaaa tatggtgagc 2100 actggattet gagacaette aggeetttag gaaagaaaet aaaetgaaga tgatgaagaa 2160 tattaaccaa gcacctttta tggacccttg cattcactga taactttctg gcagcatcta 2220 ctttttagtg taactaatgt caaactgtat catcaaaaac aaagatctga aagaaaaaa 2280 catctgatat tttaacagct gccaatatct cccacaataa ctgcgtgaag aaggaatttt 2340 ttaattactt aacctacgtg aaaagaaaag ggctaaaagt gatgcctaca aatacattac 2400 tttctgggga aagaaaagaa ttccaagaat gtttgcaata atggcctcca atactgaaac 2460 aaccaaaagc aggtgaaatg aggctgaaat caaggctgtt tcattttagc tgaagacctg 2520 caaagctgct tggatttcta gcagttgaaa acctaacctg caattgatgc ttaatcatcc 2580 atccacatga acatgcagtc agctatacgc atcaagactc gtttgcaaaa accattgatt 2640 tttcagtatg tgggataagg gtttgggttt ttttgttttt tggtctgtat aaggaattat 2700 gtgtgtgtga gttgggatgt atggatatgt gatagtcata ttttcaaggt atggatgttt 2760 ggtgataacg tctcagagca tgcctaaaag agcactgcaa gattattttt gaagaaatgt 2820 tattttatta gatctaactc ttcatagtat gtaaatgtta gaacatttta ataatatttt 2880 aaaactgggc tttcccagta tttcaaaaag aaataatata tctgttaacg ttattggaat 2940 gctgctcagt tctctgatca gtgcttatgt tatgattgtt gataactaac caaagtagat 3000 gcctgcagag actttaaaat gtaaaataaa gatgtatgct gcctgtcagc tattctcatt 3060 agaaaagttt taacttattt tactccatat agaaactgta gagactaaaa ccagttattt 3120 tottgtacat ttgtgccatg cactgttgtt atacaagaat aggtgtacaa agctaaagaa 3180 aaattgtggt cattgatgat ggaatatatg acttgcaggc tttgaagtct gcagaattca 3240 agaaaagagc tgcaaatgca ttttttgtatc tttattcagg actcacatgc tttaccctaa 3300 agaaacctgg ggctagggga aatgaaagga agcctgaaga ctgactacca aaacatgcaa 3360 tatacttatt cactgtctaa gtctgtagta taacatgaac tggagtctct atccttttct 3420 3468

<210> 37

```
<211> 1112
<212> DNA
<213> Homo sapiens
<400> 37
 ggcacgagca gaccteggac gagagegeec eggggagete ggagegegtg caegegtgge
                                                                          60
 agacggagaa ggccagtgcc cagcttgaag gttctgtcac cttttgcagt ggtccaaatg
                                                                         120
 agaaaaaagt ggaaaatggg aggcatgaaa tacatctttt cgttgttgtt ctttcttttg
                                                                         180
 ctagaaggag gcaaaacaga gcaagtaaaa cattcagaga catattgcat gtttcaagac
                                                                         240
 aagaagtaca gagtgggtga gagatggcat ccttacctgg aaccttatgg gttggtttac
                                                                         300
 tgcgtgaact gcatctgctc agagaatggg aatgtgcttt gcagccgagt cagatgtcca
                                                                         360
 aatgttcatt gcctttctcc tgtgcatatt cctcatctgt gctgccctcg ctgcccagaa
                                                                         420
 gactccttac ccccagtgaa caataaggtg accagcaagt cttgcgagta caatgggaca
                                                                         480
 acttaccaac atggagaget gttegtaget gaagggetet tteagaateg geaacecaat
                                                                         540
 caatgcaccc agtgcagctg ttcggaggga aacgtgtatt gtggtctcaa gacttgcccc
                                                                         600
 aaattaacct gtgccttccc agtctctgtt ccagattcct gctgccgggt atgcagagga
                                                                         660
 gatggagaac tgtcatggga acattctgat ggtgatatct tccggcaacc tgccaacaga
                                                                         720
 gaagcaagac attettacca ccacteteac tatgateete caccaageeg acaggetgga
                                                                         780
 ggtetgtece gettteetgg ggeeagaagt caeeggggag etettatgga tteecageaa
                                                                         840
 gcatcaggaa ccattgtgca aattgtcatc aataacaaac acaagcatgg acaagtgtgt
                                                                         900
 gtttccaatg gaaagaccta ttctcatggc gagtcctggc acccaaacct ccgggcattt
                                                                         960
 ggcattgtgg agtgtgtgct atgtacttgt aatgtcacca agcaagagtg taaqaaaatc
                                                                        1020
 cactgcccca atcgataccc ctgcaagtat cctcaaaaaa tagacggaaa gtgctgcaag
                                                                        1080
 gtgtgtccag gtaaaaaaaa aaaaaaaaa aa
                                                                        1112
<210> 38
<211> 2249
<212> DNA
<213> Homo sapiens
<400> 38
 tegacecaeg egteegtget eggagaatga aggegettet gttgetggte ttgeettgge
                                                                          60
 teagteetge taactacatt gacaatgtgg geaacetgea etteetgtat teagaactet
                                                                         120
 gtaaaggtgc ctcccactac ggcctgacca aagataggaa gaggcgctca caagatggct
                                                                         180
 gtccagacgg ctgtgcgagc ctcacagcca cggctccctc cccagaggtt tctgcagctg
                                                                         240
 ccaccatctc cttaatgaca gacgagcctg gcctagacaa ccctgcctac gtgtcctcgg
                                                                         300
cagaggacgg gcagccagca atcagcccag tggactctgg ccggagcaac cgaactaggg
                                                                         360
 cacggccctt tgagagatcc actattagaa gcagatcatt taaaaaaata aatcgagctt
                                                                         420
 tgagtgttct tcgaaggaca aagagcggga gtgcagttgc caaccatgcc gaccagggca
                                                                         480
 gggaaaattc tgaaaacacc actgcccctg aagtctttcc aaggttgtac cacctgattc
                                                                         540
 cagatggtga aattaccagc atcaagatca atcgagtaga tcccagtgaa agcctctcta
                                                                         600
ttaggctggt gggaggtagc gaaaccccac tggtccatat cattatccaa cacatttatc
                                                                         660
gtgatggggt gatcgccaga gacggccggc tactgccagg agacatcatt ctaaaggtca
                                                                         720
 acgggatgga catcagcaat gtccctcaca actacgctgt gcgtctcctg cggcagccct
                                                                         780
 gccaggtgct gtggctgact gtgatgcgtg aacagaagtt ccgcagcagg aacaatggac
                                                                         840
 aggccccgga tgcctacaga ccccgagatg acagctttca tgtgattctc aacaaaagta
                                                                         900
 ggccccgagg agcagcttgg aataaaactg gtgcgcaagg tggatgagcc tggggttttc
                                                                         960
 atcttcaatg tgctggatgg cggtgtggca tatcgacatg gtcagcttga ggagaatgac
                                                                        1020
 cgtgtgttag ccatcaatgg acatgatctt cgatatggca gcccagaaag tgcggctcat
                                                                        1080
 ctgattcagg ccagtgaaag acgtgttcac ctcgtcgtgt cccgccaggt tcggcagcgg
                                                                        1140
 agccctgaca tctttcagga agccgcgctg gaacagcaat ggcagctggt ccccagggcc
                                                                        1200
 aggggagagg agcaacactc ccaagcccct ccatcctaca attacttgtc atgagaaggt
                                                                        1260
ggtaaatatc caaaaaagac cccggtgaat ctctcggcat gaccgtcgca gggggagcat
                                                                        1320
cacatagaga atgggatttg cctatctatg tcatcagtgt tgagcccgga ggagtcataa
                                                                        1380
```

gcagagatgg aagaataaaa acaggtgaca ttttgttgaa tgtggatggg gtccgaactg

acagaggtca gcccggagtg aggcagtggc attattgaaa agaacatcat cctcgatagt

1440

```
actcaaaget ttggaagtea aagagtatga geeecaggaa gaetgeagea geeeageage
                                                                      1560
 cotggactcc aaccacaaca tggccccacc cagtgactgg tccccatcct gggtcatgtg
                                                                      1620
 gctggaatta ccacggtgct tgtataactg taaagatatt gtattacgaa gaaacacagc
                                                                      1680
 tggaagtctg ggcttctgca ttgtaggagg ttatgaagaa tacaatggaa acaaaccttt
                                                                      1740
 tttcatcaaa tccattgttg aaggaacacc agcatacaat gatggaagaa ttagatgtgg
                                                                      1800
 tgatattett ettgetgtea atggtagaag tacateagga atgatacatg ettgettgge
                                                                      1860
 aagactgctg aaagaactta aaggaagaat tactctaact attgtttctt ggcctggcac
                                                                      1920
 ttttttatag aatcaatgat gggtcagagg aaaacagaaa aatcacaaat aataggctaa
                                                                      1980
 gaagttgaaa cactatattt atcttgtcag tttttatatt taaagaaaga atacattgta
                                                                      2040
 aaaatgtcag gaaaagtatg atcgtctaat gaaagccagt tacacctcag aaaatatgat
                                                                      2100
 tccaaaaaaa ttaaaactac tagtttttt tcagtgtgga ggatttctca ttactctaca
                                                                      2160
 2220
 aaaaaaaaa aaaaaaaaaa
                                                                      2249
<210> 39
<211> 2636
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (632)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (887)
<223> n equals a,t,q, or c
<400> 39
tgctgcagga attcggcacg agggcaatcc gggcttgcag acgaggtaag gtcgattcca
                                                                        60
 tttggcccgg ggatggtcac acgcgcgggg gccggaactg ccgtcgccgg cgcggtcgtt
                                                                       120
gtcgcattgc tctcggccgc actcgcgctg tacgggccgc cactggacgc agttttagaa
                                                                       180
agagegtttt egetaegtaa ageacatteg ataaaggata tggaaaatae tttgeagetg
                                                                       240
gtgagaaata tcatacctcc tctgtcttcc acaaagcaca aagggcaaga tggaagaata
                                                                       300
ggcgtagttg gaggctgtca ggagtacact ggagccccat attttgcaga atctcagctc
                                                                       360
tcaaagtggg cgcagacttg tcccacgtgt tctgtgccag tgcggccgca cctgtgatta
                                                                       420
aggectacag eceggagetg ategtecace cagttettga cagececaat getgtteatg
                                                                       480
aggtggagaa gtggctgccc cggctgcatg ctcttgtcgt aggacctggc ttgggtagag
                                                                       540
atgatgcgct tctcagaaat gtccagggca ttttggaagt gtcaaaggcc agggacatcc
                                                                       600
ctgttgtcat cgacgcggat ggcctgtggt gngtcgctca gcagccggcc ctcatccatq
                                                                       660
gctaccggaa ggctgtgctc actcccaacc acgtggagtt cagcagactg tatgacgctg
                                                                       720
tgctcagagg ccctatggac agcgatgaca gccatggatc tgtgctaaga ctcagccaag
                                                                       780
ccctgggcaa cgtgacggtg gtccagaaag gagagcgcga catcctctcc aacggccagc
                                                                       840
aggtgcttgt gtgcagccag gaaggcagca gcgcaggtgt ggagggnaag gggacctcct
                                                                       900
gtcgggctcc ctgggcgtcc tggtacactg ggcgctsctt gctggaccac agawaacaaa
                                                                       960
 tgggtccagc cctctcctgg tggccgcgtt tggcgcctgc tctctcacca ggcagtgcaa
                                                                      1020
ccaccaagcc ttccagaagc acggtcgctc caccaccacc tccgacatga tcgccgaggt
                                                                      1080
gggggccgcc ttcagcaagc tctttgaaac ctgagcccgc gcagaccaga agtaaacagg
                                                                      1140
caccttggac gggggagagc gtgtgtgtga tgggaaaatc cggacccacg cgtgtgctga
                                                                      1200
aggogtacgg tgcttgccag attttcaact tgagcataaa ttggttgcca ttgagaattt
                                                                      1260
aagaatctgg aatattgcag cttttggtta aacttaatgc atggttggag atgttatggc
                                                                      1320
gacactaaac aaagtattcc tgaactttcc ttagctcctt ggtagtaact gggaagacag
                                                                     1380
aaatgaagaa aatcacatga gaatgaagaa ttctttagca gctcaacaga gtttctcggc
                                                                      1440
ctgctcccag atcggcgaag tttctacttg ttactctctc tgccggcgcc cttcqttcct
                                                                      1500
cottogetto cottocctag totttcctcc ggcagggagc tgggcagggg tccccqqqtq
                                                                      1560
tetecetgag tecegaetge actgaetggg tecateagag ggetgetteg ttetecaget
```

```
catcttcttt taaagtggtg actagcttgg tggtatctgg ctgctggtgt ttggcttatt
                                                                        1680
 gacatactcc agggtaatca atgatgactt tgtttggaaa cccttttgga ggcaccatgg
                                                                        1740
 gaacagaagg aaacatgagt gacgctgacc cttgagtgtg tgggtgggga gctctgagac
                                                                        1800
 geeteetgte ecaegetete eggtgteegt gtetacacag gggteeceat gatacecace
                                                                        1860
 ggccccagca gggcagaccg gaccggggac gggcacggtg aagggctgca gcctggggtc
                                                                        1920
 tgacgtggcc cctagtgctg tctcaggaga aggctctgga ggacttgagg catgctgggc
                                                                        1980
 ctggtgcagt gatggcgcta aggagacccg gggaaagaca gtatcgtggt cacgtatgct
                                                                        2040
 taggaagcag cacagccgtg tccttaggga tgttcgcgtc cagtaaagac actggtaact
                                                                        2100
 geggttteag ceaacactet teatggeagt gtegaceteg ggttagette tgttgtettt
                                                                        2160
 gtggatggtt ttcctggagc ggcctgacgt tgacgtgttc tctggtccca tgtcttagcg
                                                                        2220
 gggcatggta cggtttcgtg cctgacgcgt gcattagggt gttctcttat actttcagta
                                                                        2280
 gertetttee acageaaggg ccaaaccete etggtteeet teagagtett tttggeetga
                                                                        2340
 tgatgactct tgagtgatac cctgtgatgc agacatgccc cagatggatt ctactttctt
                                                                        2400
 taaaactagg gactttcaag attaaaaaaa agattgtcac tactaatttg acgcctaact
                                                                        2460
 tcagaagctt cactgtctac atgtgaactt ttccagaaaa actgtgccat ggacattttt
                                                                        2520
 cctctgggga attaacatct aaattctggt aactattaaa agacagatct ggttaattta
                                                                        2580
 aaaaaaaaa aaaaaaaaa aaaaaaaaa aaaaattcct ggggccgcga attctt
                                                                        2636
<210> 40
<211> 2636
<212> DNA
<213> Homo sapiens
<400> 40
 tgctgcagga attcggcacg agggcaatcc gggcttgcag acgaggtaag gtcgattcca
                                                                         60
 tttggcccgg ggatggtcac acgcgcgggg gccggaactg ccgtcgccgg cgcggtcgtt
                                                                         120
gtcgcattgc tctcggccgc actcgcgctg tacgggccgc cactggacgc agttttagaa
                                                                         180
 agagcgtttt cgctacgtaa agcacattcg ataaaggata tggaaaatac tttgcagctg
                                                                        240
gtgagaaata tcatacctcc tctgtcttcc acaaagcaca aagggcaaga tggaagaata
                                                                        300
 ggcgtagttg gaggctgtca ggagtacact ggagccccat attttgcaga atctcagctc
                                                                        360
 tcaaagtggg cgcagacttg tcccacgtgt tctgtgccag tgcggccgca cctgtgatta
                                                                         420
 aggectacag eceggagetg ategtecace cagttettga cagececaat getgtteatg
                                                                         480
 aggtggagaa gtggctgccc cggctgcatg ctcttgtcgt aggacctggc ttgggtagag
                                                                        540
 atgatgeget teteagaaat gteeagggea ttttggaagt gteaaaggee agggaeatee
                                                                         600
 ctgttgtcat cgacgcggat ggcctgtggt kggtcgctca gcagccggcc ctcatccatg
                                                                         660
 gctaccggaa ggctgtgctc actcccaacc acgtggagtt cagcagactg tatgacgctg
                                                                        720
 tgctcagagg ccctatggac agcgatgaca gccatggatc tgtgctaaga ctcagccaag
                                                                        780
 ccctgggcaa cgtgacggtg gtccagaaag gagagcgcga catcctctcc aacggccagc
                                                                        840
 aggtgcttgt gtgcagccag gaaggcagca gcgcaggtgt ggagggsaag gggacctcct
                                                                        900
 gtegggetee etgggegtee tggtacaetg ggegetsett getggaeeae agawaacaaa
                                                                        960
 tgggtccagc cctctcctgg tggccgcgtt tggcgcctgc tctctcacca ggcagtgcaa
                                                                        1020
 ccaccaagcc ttccagaagc acggtcgctc caccaccacc tccgacatga tcgccgaggt
                                                                        1080
gggggccgcc ttcagcaagc tctttgaaac ctgagcccgc gcagaccaga agtaaacagg
                                                                       1140
 caccttggac gggggagagc gtgtgtgtga tgggaaaatc cggacccacg cgtgtgctga
                                                                       1200
aggcgtacgg tgcttgccag attttcaact tgagcataaa ttggttgcca ttgagaattt
                                                                       1260
aagaatctgg aatattgcag cttttggtta aacttaatgc atggttggag atgttatggc
                                                                       1320
gacactaaac aaagtattcc tgaactttcc ttagctcctt ggtagtaact gggaagacag
                                                                       1380
aaatgaagaa aatcacatga gaatgaagaa ttctttagca gctcaacaga gtttctcggc
                                                                       1440
ctgctcccag atcggcgaag tttctacttg ttactctctc tgccggcgcc cttcgttcct
                                                                       1500
cetetgette cettecetag tetttectee ggeaggage tgggeagggg teccegggtg
                                                                       1560
 tetecetgag tecegaetge actgaetggg tecateagag ggetgetteg ttetecaget
                                                                       1620
catcttcttt taaagtggtg actagcttgg tggtatctgg ctgctggtgt ttggcttatt
                                                                       1680
gacatactcc agggtaatca atgatgactt tgtttggaaa cccttttgga ggcaccatgg
                                                                       1740
gaacagaagg aaacatgagt gacgctgacc cttgagtgtg tgggtgggga gctctgagac
                                                                       1800
gcctcctgtc ccacgctctc cggtgtccgt gtctacacag gggtccccat gatacccacc
                                                                       1860
ggccccagca gggcagaccg gaccggggac gggcacggtg aagggctgca gcctggggtc
                                                                       1920
```

tgacgtggcc cctagtgctg tctcaggaga aggctctgga ggacttgagg catgctgggc

```
ctggtgcagt gatggcgcta aggagacccg gggaaagaca gtatcgtggt cacgtatgct
                                                                      2040
 taggaagcag cacagccgtg tccttaggga tgttcgcgtc cagtaaagac actggtaact
                                                                      2100
 geggtttcag ccaacactet teatggeagt gtegaceteg ggttagette tgttgtettt
                                                                      2160
gtggatggtt ttcctggagc ggcctgacgt tgacgtgttc tctggtccca tgtcttagcg
                                                                      2220
gggcatggta cggtttcgtg cctgacgcgt gcattagggt gttctcttat actttcagta
                                                                      2280
gcrtctttcc acagcaaggg ccaaaccctc ctggttccct tcagagtctt tttggcctga
                                                                      2340
 tgatgactct tgagtgatac cctgtgatgc agacatgccc cagatggatt ctactttctt
                                                                      2400
 taaaactagg gactttcaag attaaaaaaa agattgtcac tactaatttg acgcctaact
                                                                      2460
 tcagaagctt cactgtctac atgtgaactt ttccagaaaa actgtgccat ggacattttt
                                                                      2520
 cctctgggga attaacatct aaattctggt aactattaaa agacagatct ggttaattta
                                                                      2580
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaattcct ggggccgcga attctt
                                                                      2636
<210> 41
<211> 2372
<212> DNA
<213> Homo sapiens
<400> 41
ggcacgaggc tggcctggct gcggctatgt gcgtgtgtgt gtgttgtgcac tccagcctgg
                                                                        60
ctgtgggtgt gtgcgtgtgc actggtctgg ctgtgggtgt gtgtgtgtgt gtgcatgtat
                                                                       120
gcatgtgtgt gccgtgtgct ccagcctggc tgtggacgtg tgcttgtgtg tgcgcgtgtt
                                                                       180
ccggcctggc tgtgggtgtg tgtgtgcgtg tgcgtgtgt tgtgcgtgtg tgtcttggct
                                                                       240
tcaggggctg tgaggcccct gagagttggg gctttgttct ctgcacactg gaaaccctcc
                                                                       300
                                                                       360
cccttctcac agatgcctgg ccgtggtggg gctgcggtgg ggacccactt ggtcttgctg
agtgatctgt gacggctcgc ggggtggctc aggtatcagg ggacagccat gtctgtgagg
                                                                       420
                                                                       480
 acteoggece egeteagatg aggeagecea gecegtegee cagggteegg egtgggaetg
                                                                       540
cagtagggat ggctctgcct aggtgggccg aggccgtgcg gggctttagg tgaggctggg
 atctaactca gcgcagcttc aggtgggaga aggggcagct gggccctcct ggtgactcac
                                                                       600
 atcacgtgag acaacactgt gccctggcct ttccagtctt tcctgcagct gcgcaactgg
                                                                       660
 acggeeteec tgetetgete egeaacegae eteccegece gtggetteag caaceagate
                                                                       720
 ccgctggtgg cgcgggggaa ctgcaccttc tatgagaaag tgaggctggc ccagggcagc
                                                                       780
                                                                       840
ggagcacgcg ggctgctcat cgtcagcagg gagaggctgg tacggccctg tgcgtcccc
gctgggccag ctctcagggg caggaggggg gtgcaggagg cagagatggc agcagctggg
                                                                       900
gctggtcttc cgacttctcg ctaaaggcag atccatctgt ggggaggatc tgggccgagt
                                                                       960
gtgaacatgg ggaggatccg ggccgagtgt ggccgtgggg agggcggaga tgagtctgtt
                                                                      1020
 cttcctgagc tgctggctgg ggctgtggaa ctttggccgt ggtcttgttg ggtgcctgtc
                                                                      1080
 ctagagcagc ccccaggggt gacggagacc acaccctctg tggggatggg attggggtgg
                                                                      1140
 cttctgagga gcaggtggcc tggccctgag ctggtccttt ctgggtaccc tggtgccctt
                                                                      1200
 gccctctagc cggtggggcc gtgctcgcct gtgtggtcct agccaggtgg cgtgaagcct
                                                                      1260
 ggcccctttt ccatcttctg tgaaatgggg ctgtggttga gagctggggg cctggcaggg
                                                                      1320
 1380
 aagtgtagtt ttggagtaag aaggaatgga gttcaggaat tccctcacag ctctgcctgt
                                                                      1440
 ggctctgggc tgccccgcc agtgttgcac cctgagcctg gcaatccacg gaggcctggt
                                                                      1500
 geaggggete agggeegagg geagageagg eegggeagag eegagagtge catecetgte
                                                                      1560
 cgcacacgct gccgtcgtag ttgagagagg ccctcagtgg gtgcggggct caaggcggct
                                                                      1620
 tagtgggcag gcatgggctg tgacaagtat cactcaggac ttgtatgtgc ggttcgggag
                                                                      1680
 teccaeggee gagggaggga ttagtggege ttttaggeet ggggeeetgt tgteaggtga
                                                                      1740
 agaaggettg atgeeetteg geeteeetgt tettgggtee teetgggggg eeggaggetg
                                                                      1800
 tcagctgcag agggggagcc agcaggcgcc cccagcctga cccgagcctc gagtgagggt
                                                                      1860
 cccaggagag gaggdgaatg ggcacagagc tgggggccca cccactgctg cgggtgatgc
                                                                      1920
 etgeegetee etectetggg ecceeaggte ecceeggggg gtaataagae geatatgatg
                                                                      1980
 agattggcat tecegtggee etgeteaget acaaagacat getggacate tteaeggtag
                                                                      2040
 gtetgegeeg geteagaeee aegeteeega ggagatgggg cagggggett egggetgget
                                                                      2100
 gccggggggg tttgtgcctc agttggtggg atcagggtgg tgggtgaggc gtggcccctg
                                                                      2160
 caggocaggg totocagooc cagooccaca goocacagot goacgtogac coatggotgg
                                                                      2220
 egggtggete tgaegeetge eteeggtgtg tteettgagg eagegttteg geegeaeggt
                                                                      2280
```

gagggcggcg ctgtatgcgc ctaaggagcc ggtgctggac tacaacctcg tgccgaattc

```
gatatcaagc ttatcgatac cgtcgacctc ga
                                                                      2372
<210> 42
<211> 1268
<212> DNA
<213> Homo sapiens
<400> 42
 ggcacgageg eggetetgga geegeeegge eeggacatgg egacegteeg ggeetetetq
                                                                        60
 cgaggtgcgc tgctccttct gctggccgtg gcgggggtcg cggaggtggc agggggcctg
                                                                       120
 gctccgggca gtgcgggtgc attgtgttgt aatcattcaa aggataacca aatgtgccgt
                                                                       180
 gatgtatgtg aacagatttt ctcctcaaaa agtgaatccc gactaaaaca tctgttgcag
                                                                       240
 cgagccccag attattgccc agagacaatg gttgaaattt ggaattgtat gaattcatct
                                                                       300
 ttgccaggtg tgtttaagaa gtctgatggc tgggttggct taggctgctg tgaactqqct
                                                                       360
 attgccttgg agtgtcgaca ggcatgcaag caggcatctt caaagaatga tatttccaaa
                                                                       420
gtttgcagaa aagaatatga gcctgtcctc cgttatttta gtgtgcttcc ttctcttgtc
                                                                       480
 tggatttctg cattgcccta ggaagtctgc cagtatgtgt tgatgaagga caagacagga
                                                                       540
 aagaatgoto tittcagtig cattagoaga aatgaaatgg gotoggittig tigoagtiat
                                                                       600
gcaggtcatc acacaaactg ccgagaatac tgtcaagcca tttttcgaac agactcttct
                                                                       660
 cctggtccat ctcagataaa agcagtggaa aattattgcg cctctattag tccacaatta
                                                                       720
 atacattgtg tgaacaatta tactcaatct tatccaatga ggaacccaac ggataggcct
                                                                       780
cctgatgaag ctgcacctga aatggctctt cagagtctcc gctttgtaca tcctggaatc
                                                                       840
cattttcttc acctagaggt gaccagattt ataaaaactg actgattgac caaactgacc
                                                                       900
aaagactgat ttataagatg tcaatgtttt gatttacact gtgatattga aagaggctct
                                                                       960
gtggcttatg tctgtaatct cagcgctttg tgatgctgag gcaggagaat tgcttgaggc
                                                                      1020
caagagtttg agaccagcct gggtaacaaa gtgagaaccc agctctacaa aaaaaaata
                                                                      1080
ataataatta getgggtgtg gtgacacace cageteetea ggaggetgat getggaggat
                                                                      1140
egettgagee caagagttea aggttgeagt gageeateat caetteaetg caetecagee
                                                                      1200
1260
 aaaaaaa
                                                                      1268
<210> 43
<211> 1268
<212> DNA
<213> Homo sapiens
<400> 43
ggcacgagcg cggctctgga gccgcccggc ccggacatgg cgaccgtccg ggcctctctg
                                                                        60
 egaggtgege tgeteettet getggeegtg gegggggteg eggaggtgge agggggeetg
                                                                       120
 gctccgggca gtgcgggtgc attgtgttgt aatcattcaa aggataacca aatgtgccgt
                                                                       180
 gatgtatgtg aacagatttt ctcctcaaaa agtgaatccc gactaaaaca tctgttgcag
                                                                       240
 cgagccccag attattgccc agagacaatg gttgaaattt ggaattgtat gaattcatct
                                                                       300
ttgccaggtg tgtttaagaa gtctgatggc tgggttggct taggctgctg tgaactggct
                                                                       360
 attgccttgg agtgtcgaca ggcatgcagc aggcatcttc aaagaatgat atttccaaag
                                                                       420
 tttgcagaaa agaatatgag cctgtcctcc gttattttag tgtgcttcct tctcttgtct
                                                                       480
ggatttctgc attgccctag gaagtctgcc agtatgtgtt gatgaaggac aagacaggaa
                                                                       540
agaatgetet tttcagttge attageagaa atgaaatggg eteggtttgt tgeagttatg
                                                                       600
 caaggtcatc acacaaactg ccgagaatac tgtcaagcca tttttcgaac agactcttct
                                                                       660
 cctggtccat ctcagataaa agcagtggaa aattattgcg cctctattag tccacaatta
                                                                       720
 atacattgtg tgaacaatta tacttcaatc ttatccaatg aggaacccaa cggataggcc
                                                                       780
 tectgatgaa getgeacetg aaatggetet teagagtete egetttgtae atectggaat
                                                                       840
 ccattttctt cacctagagg tgaccagatt tataaaaact gactgattga ccaaactgac
                                                                       900
 caaagactga tttataagat gtcaatgttt tgatttacac tgtgatattg aaagaggctc
                                                                       960
 tgtggcttat gtctgtaatc tcagcgcttt gtgatgctga ggcaggagaa ttgcttgagg
                                                                      1020
 ccaagagttt gagaccagcc tgggtaacaa agtgagaacc cagctctaca aaaaaaaaat
                                                                      1080
aataataatt agctgggtgt ggtgacacac ccagctcctc aggaggctga tgctggagga
```

```
1200
1260
aaaaaaaa
                                                                    1268
<210> 44
<211> 2254
<212> DNA
<213> Homo sapiens
<400> 44
cgtgagacca gcggctgctg ccctgccgca agtacgagca gatcgaagag ggcactgtcc
                                                                      60
ggcgcctcat catccacagg ctgaaggaga cgatgatggt atctacctgt gcgagatgcg
                                                                     120
gggccgggtg cgcaccgtgg ccaacgtcac agtcaaaggg cccatcctga agcgctgccc
                                                                     180
cggaageteg acgteetgga aggagagaat getgtgetge tagtggaaac tetagaggee
                                                                     240
                                                                     300
ggggtcgagg gacgctggag ccgtgatggg gaggagctgc cggtcatctg ccagagcagc
                                                                     360
tcaggccaca tgcatgccct ggtccttcca ggggtcaccc gagaggatgc tggcgaggtc
acctttagcc tgggcaactc ccgtaccact acgcttctca gagtaaaatg tgtcaagcac
                                                                     420
                                                                     480
agtcccccag gaccccccat attggcagag atgttcaagg gccacaagaa cacggtcctg
ttgacctgga agcctcccga gccagctccc gagaccccat tcatctaccg gctggagcgg
                                                                     540
                                                                     600
caggaagtgg gctctgaaga ctggattcag tgcttcagca tcgagaaagc cggagccgtg
                                                                     660
gaggtgccgg gcgactgtgt gccctccgag ggtgactacc cgcttccgca tctgcacagt
cagoggacat gccgtagtcc ccacgtggtg ttccacggtt ctgctcacct ttgtgcccac
                                                                     720
agetegeetg gtggeaggte tggaggatgt geaggtatae gaeggggaag atgeegtett
                                                                     780
ctccctcgat ctctccacca tcatccaggg tacctggttc ccttaatggg gaagagctca
                                                                     840
agagtaacga gccggagggc caggtggaac ctggggccct gcggtaccgt atagagcaga
                                                                     900
 agggtctgca gcacagactc atcctgcatg ccgtcaagca ccaggacagc ggtgccctgg
                                                                     960
teggetteag etgeecegg egtgeaggat teagetgeec teacaateca agagaageec
                                                                    1020
ggtgcacatc ctgagccccc aggacaaggt gtcgttgacc ttcacaacct cgagcgggtg
                                                                    1080
gtgctgactt gtgagctctc aagggtggac ttcccggcaa cctggtacaa ggatgggcag
                                                                    1140
aaggtggagg agagcgagtt gctggtggtg aagatggatg ggccgcaaac accgtctgga
                                                                    1200
 tcctgcctga aggccaaagt ccaggacagt ggcgagtttg agtgcaggac aagaaggggt
                                                                    1260
 cteggeette tteggegtea etgteeaaga teeteeegtg cacategtgg acceeegaga
                                                                    1320
 acatgtgttc gtgcatgcca taacttccga gtgtgtcatg ctggcctgtg aggtggaccg
                                                                    1380
 agaggacgcc cctgtgcgtt ggtacaagga cgggcaggag gtggaggaga gtgacttcgt
                                                                    1440
 ggtgctggag aatgagggc cccatcgccg cctggtgctg cccgccaccc agccctcaga
                                                                    1500
 cgggggcgag tttcaqtgcg tcgctggaga tgagtgtgcc tacttcactg tcaccatcac
                                                                    1560
 agacgtctcc tcgtqqatcq tgtatcccag cggcaaggtg tatgtggcag ccgtgcgcct
                                                                    1620
 ggagcgtgtg gtgctgacct gtgagctatg ccggccctgg gcagaggtgc gctggaccaa
                                                                    1680
 ggatggagag gaggtggtgg agaccccgcg ctgctcctgc agaaggaaga cactgtccgc
                                                                    1740
 egectggtge tgeeegetgt ceagetegag gaeteeggeg agtaettgtg tgaaattgae
                                                                    1800
 gatgagtcgg cctccttcac tqtcaccctc acagagtctt accaaagtca ggacagttca
                                                                    1860
 aataacaatc cggaqttatg cgtcctcttg aaaaagccga agacccggcg gctctggtcc
                                                                    1920
 egetteece catggecacg aacagetgge actgagtage agetgeece atagtttggg
                                                                    1980
 geocacatte etetgteeca ectecetgee attgettttt geeteteece agacegette
                                                                    2040
 accttccacc cgggtgtggt accaggtaag tgtacccgtt tgcgacccct gtgttaaacc
                                                                    2100
 aataaacatg caaataaatg tacaacgtcg tgactgggaa aaccctggcg ttacccaact
                                                                    2160
 aatcgccttg cagcacatcc ccctttcgcc agctggcgta atagcgaaga gcccgaccga
                                                                    2220
 tcgcctttcc aacaagttgc gcagcctgaa tggt
                                                                    2254
<210> 45
<211> 1707
<212> DNA
<213> Homo sapiens
<400> 45
ccacgogtcc gggcctgagt cctctgacct ctattcagaa atccctgccc tgacccgctg
                                                                      60
```

```
120
tgccaaggtt agcacctgcc agaatcaacc aaggccggac aaggcatgag gagcgctgct
                                                                    180
tectgggeet ggeteeteec cetteteece atttgggetg etgtgeeagg gettgeteea
                                                                    240
acacctactc agtctttggg tctgtttaac tgccacttcc cccagtaaac cttctgctcc
                                                                    300
ccattcacat cagatggact tgtgtctctt gcactagtct atgagatttg gatgtctgtg
                                                                    360
teettaggge ceaagetgge cactetggee cagaageage etegggeeat gtettgteta
                                                                    420
                                                                    480
cagggtgtgg ggggacagta tgtgcacccc cttgctttct caggtggact ttgaacagct
                                                                    540
gactgagaac ctggggcagc tggagcgccg gagccgggca gccgaggaga gcctgcggac
ttggccaage atgagetgge eccageeetg egtgeeegee teacceaett eetggaceag
                                                                    600
tgtgcccgcg cgtgttgcca tgctaaggat agtgcaccgc cgtgtctgca ataggttcca
                                                                    660
tgccttcctg ctctacctgg gctacacccc gcaggcggcc cgtgaagtgc gcatcatgca
                                                                    720
gttctgccac acgctgcggg aatttgcgct tgagtatcgg acttgccggg aacgagtgct
                                                                    780
acagcagcag cagaagcagg ccacataccg tgagcgcaac aagacccggg gacgcatgat
                                                                    840
caccgaggtg ggtgcccttc caggtcttag tcttgactgc cacctccttg gtttccttcg
                                                                    900
ctcctcccag ctcacccttc ttctttctcc agacagagaa gttctcaggt gtggctgggg
                                                                    960
aagcccccag caacccctct gtcccagtag cagtgagcag cgggccaggc cggggagatg
                                                                   1020
ctgacagtca tgctagtatg aagagtctgc tgaccagcag gcctgaggac accacacaca
                                                                   1080
ategeogeag cagaggeatg gtecagagea getececaat catgeceaca gtggggeeet
                                                                   1140
ccactgcatc cccagaagaa cccccaggct ccagtttacc cagtgataca tcagatgaga
                                                                   1200
tcatggacct tctggtgcag tcagtgacca agagcagtcc tcgtgcctta gctgctaggg
                                                                   1260
                                                                   1320
aacgcaagcg ttcccgcggc aaccgcaagt cttgtaagta accccccaca atcccactgc
                                                                   1380
ccacctgaac cccatcaacc ccctccaacc ctgctctgtc cctgcagtga gaaggacgtt
gaagagtggg ctcggagatg acctggtgca ggcactggga ctaagcaagg gtcctggcct
                                                                   1440
ggaggtgtga aggtgctgta tcccggaaat ctatctggac cctggactgc agtgcaggag
                                                                   1500
atgacagagt gaggagggcc cagagcagaa ttctggcccc agaactctgt gcccaggagc
                                                                   1560
catgccttga gcagtattag ccgtgtgtgt atgcatgtga gtgtgtgtgt atgtgtgtgt
                                                                   1620
                                                                   1680
1707
tttcttagct aatccaaaaa aaaaaaa
<210> 46
<211> 453
<212> PRT
<213> Homo sapiens
<400> 46
Met Arg Lys Lys Trp Lys Met Gly Gly Met Lys Tyr Ile Phe Ser Leu
Leu Phe Phe Leu Leu Glu Gly Gly Lys Thr Glu Gln Val Lys His
            20
Ser Glu Thr Tyr Cys Met Phe Gln Asp Lys Lys Tyr Arg Val Gly Glu
                           40
```

Leu Phe Phe Leu Leu Leu Glu Gly Gly Lys Thr Glu Gln Val Lys His 20

Ser Glu Thr Tyr Cys Met Phe Gln Asp Lys Lys Tyr Arg Val Gly Glu 45

Arg Trp His Pro Tyr Leu Glu Pro Tyr Gln Leu Val Tyr Cys Val Asn 50

Cys Ile Cys Ser Glu Asn Gly Asn Val Leu Cys Ser Arg Val Arg Cys 75

Pro Asn Val His Cys Leu Ser Pro Val His Ile Pro His Leu Cys 95

Pro Arg Cys Pro Glu Asp Ser Leu Pro Pro Val Asn Asn Lys Val Thr Ser Lys Ser Cys Glu Tyr Asn Gly Thr Thr Tyr Gln His Gly Glu Leu

120 125 115 Phe Val Ala Glu Gly Leu Phe Gln Asn Arg Gln Pro Asn Gln Cys Thr Gln Cys Ser Cys Ser Glu Gly Asn Val Tyr Cys Gly Leu Lys Thr Cys Pro Lys Leu Thr Cys Ala Phe Pro Val Ser Val Pro Asp Ser Cys Cys Arg Val Cys Arg Gly Asp Gly Glu Leu Ser Trp Glu His Ser Asp Gly Asp Ile Phe Arg Gln Pro Ala Asn Arg Glu Ala Arg His Ser Tyr His Arg Ser His Tyr Asp Pro Pro Pro Ser Arg Gln Ala Gly Gly Leu Ser Arg Phe Pro Gly Ala Arg Ser His Arg Gly Ala Leu Met Asp Ser Gln Gln Ala Ser Gly Thr Ile Val Gln Ile Val Ile Asn Asn Lys His Lys His Gly Gln Val Cys Val Ser Asn Gly Lys Thr Tyr Ser His Gly Glu Ser Trp His Pro Asn Leu Arg Ala Phe Gly Ile Val Glu Cys Val Leu Cys Thr Cys Asn Val Thr Lys Gln Glu Cys Lys Lys Ile His Cys Pro Asn Arg Tyr Pro Cys Lys Tyr Pro Gln Lys Ile Asp Gly Lys Cys Lys Val Cys Pro Glu Glu Leu Pro Gly Gln Ser Phe Asp Asn Lys Gly Tyr Phe Cys Gly Glu Glu Thr Met Pro Val Tyr Glu Ser Val Phe Met Glu Asp Gly Glu Thr Thr Arg Lys Ile Ala Leu Glu Thr Glu Arg Pro Pro Gln Val Glu Val His Val Trp Thr Ile Arg Lys Gly Ile Leu Gln His Phe His Ile Glu Lys Ile Ser Lys Arg Met Phe Glu Glu Leu Pro His Phe Lys Leu Val Thr Arg Thr Thr Leu Ser Gln Trp Lys Ile Phe Thr Glu Gly Glu Ala Gln Ile Ser Gln Met Cys Ser Ser Arg Val Cys 425

Arg Thr Glu Leu Glu Asp Leu Val Lys Val Leu Tyr Leu Glu Arg Ser 435 440 445

Glu Lys Gly His Cys 450

<210> 47

<211> 446

<212> PRT

<213> Homo sapiens

<400> 47

Met Leu His Pro Glu Thr Ser Pro Gly Arg Gly His Leu Leu Ala Val 1 5 10 15

Leu Leu Ala Leu Leu Gly Thr Ala Trp Ala Glu Val Trp Pro Pro Gln 20 25 30

Leu Gln Glu Gln Ala Pro Met Ala Gly Ala Leu Asn Arg Lys Glu Ser 35 40 45

Phe Leu Leu Ser Leu His Asn Arg Leu Arg Ser Trp Val Gln Pro 50 55 60

Pro Ala Ala Asp Met Arg Arg Leu Asp Trp Ser Asp Ser Leu Ala Gln 65 70 75 80

Leu Ala Gln Ala Arg Ala Ala Leu Cys Gly Ile Pro Thr Pro Ser Leu
85 90 95

Ala Ser Gly Leu Trp Arg Thr Leu Gln Val Gly Trp Asn Met Gln Leu 100 105 110

Leu Pro Ala Gly Leu Ala Ser Phe Val Glu Val Val Ser Leu Trp Phe 115 120 125

Ala Glu Gly Gln Arg Tyr Ser His Ala Ala Gly Glu Cys Ala Arg Asn 130 135 140

Ala Thr Cys Thr His Tyr Thr Gln Leu Val Trp Ala Thr Ser Ser Gln 145 150 155 160

Leu Gly Cys Gly Arg His Leu Cys Ser Ala Gly Gln Ala Ala Ile Glu 165 170 175

Ala Phe Val Cys Ala Tyr Ser Pro Gly Gly Asn Trp Glu Val Asn Gly 180 185 190

Lys Thr Ile Ile Pro Tyr Lys Lys Gly Ala Trp Cys Ser Leu Cys Thr 195 200 205

Ala Ser Val Ser Gly Cys Phe Lys Ala Trp Asp His Ala Gly Gly Leu 210 215 220

Cys Glu Val Pro Arg Asn Pro Cys Arg Met Ser Cys Gln Asn His Gly 235 230 235

Arg Leu Asn Ile Ser Thr Cys His Cys His Cys Pro Pro Gly Tyr Thr 245 250 255

Gly Arg Tyr Cys Gln Val Arg Cys Ser Leu Gln Cys Val His Gly Arg 260 265 270

Phe Arg Glu Glu Cys Ser Cys Val Cys Asp Ile Gly Tyr Gly Gly 275 280 285

Ala Gln Cys Ala Thr Lys Val His Phe Pro Phe His Thr Cys Asp Leu 290 295 300

Arg Ile Asp Gly Asp Cys Phe Met Val Ser Ser Glu Ala Asp Thr Tyr 305 310 310 315

Tyr Arg Ala Arg Met Lys Cys Gln Arg Lys Gly Gly Val Leu Ala Gln 325 330 335

Ile Lys Ser Gln Lys Val Gln Asp Ile Leu Ala Phe Tyr Leu Gly Arg

Leu Glu Thr Thr Asn Glu Val Ile Asp Ser Asp Phe Glu Thr Arg Asn 355 360 365

Phe Trp Ile Gly Leu Thr Tyr Lys Thr Ala Lys Asp Ser Phe Arg Trp 370 375 380

Ala Thr Gly Glu His Gln Ala Phe Thr Ser Phe Ala Phe Gly Gln Pro 385 390 395 400

Asp Asn His Gly Phe Gly Asn Cys Val Glu Leu Gln Ala Ser Ala Ala 405 410 415

Phe Asn Trp Asn Asn Gln Arg Cys Lys Thr Arg Asn Arg Tyr Ile Cys 420 425 430

Gln Phe Ala Gln Glu His Ile Ser Arg Trp Gly Pro Gly Ser 435 440 445

<210> 48

<211> 834

<212> PRT

<213> Homo sapiens

<400> 48

Met Lys His Thr Leu Ala Leu Leu Ala Pro Leu Leu Gly Leu Gly Leu 1 5 10 15

Gly Leu Ala Leu Ser Gln Leu Ala Ala Gly Ala Thr Asp Cys Lys Phe 20 25 30

Leu Gly Pro Ala Glu His Leu Thr Phe Thr Pro Ala Ala Arg Ala Arg
35 40 45

Trp Leu Ala Pro Arg Val Arg Ala Pro Gly Leu Leu Asp Ser Leu Tyr
50 55 60

- Gly Thr Val Arg Arg Phe Leu Ser Val Val Gln Leu Asn Pro Phe Pro 65 70 75 80
- Ser Glu Leu Val Lys Ala Leu Leu Asn Glu Leu Ala Ser Val Lys Val 85 90 95
- Asn Glu Val Val Arg Tyr Glu Ala Gly Tyr Val Val Cys Ala Val Ile 100 105 110
- Ala Gly Leu Tyr Leu Leu Leu Val Pro Thr Ala Gly Leu Cys Phe Cys 115 120 125
- Cys Cys Arg Cys His Arg Arg Cys Gly Gly Arg Val Lys Thr Glu His 130 135 140
- Lys Ala Leu Ala Cys Glu Arg Ala Ala Leu Met Val Phe Leu Leu Leu 145 150 155 160
- Thr Thr Leu Leu Leu Ile Gly Val Val Cys Ala Phe Val Thr Asn 165 170 175
- Gln Arg Thr His Glu Gln Met Gly Pro Ser Ile Glu Ala Met Pro Glu 180 185 190
- Thr Leu Leu Ser Leu Trp Gly Leu Val Ser Asp Val Pro Gln Glu Leu 195 200 205
- Gln Ala Val Ala Gln Gln Phe Ser Leu Pro Gln Glu Gln Val Ser Glu 210 215 220
- Glu Leu Asp Gly Val Gly Val Ser Ile Gly Ser Ala Ile His Thr Gln 225 230 235 240
- Leu Arg Ser Ser Val Tyr Pro Leu Leu Ala Ala Val Gly Ser Leu Gly 245 250 255
- Gln Val Leu Gln Val Ser Val His His Leu Gln Thr Leu Asn Ala Thr 260 265 270
- Val Val Glu Leu Gln Ala Gly Gln Gln Asp Leu Glu Pro Ala Ile Arg 275 280 285
- Glu His Arg Asp Arg Leu Leu Glu Leu Leu Gln Glu Ala Arg Cys Gln 290 295 300
- Gly Asp Cys Ala Gly Ala Leu Ser Trp Ala Arg Thr Leu Glu Leu Gly 305 310 315 320
- Ala Asp Phe Ser Gln Val Pro Ser Val Asp His Val Leu His Gln Leu 325 330 335
- Lys Gly Val Pro Glu Ala Asn Phe Ser Ser Met Val Gln Glu Glu Asn 340 345 350
- Ser Thr Phe Asn Ala Leu Pro Ala Leu Ala Ala Met Gln Thr Ser Ser 355 360 365

- Val Val Gln Glu Leu Lys Lys Ala Val Ala Gln Gln Pro Glu Gly Val 370 375 380
- Arg Thr Leu Ala Glu Gly Phe Pro Gly Leu Glu Ala Ala Ser Arg Trp 385 390 395 400
- Ala Gln Ala Leu Gln Glu Val Glu Glu Ser Ser Arg Pro Tyr Leu Gln 405 410 415
- Glu Val Gln Arg Tyr Glu Thr Tyr Arg Trp Ile Val Gly Cys Val Leu 420 425 430
- Cys Ser Val Val Leu Phe Val Val Leu Cys Asn Leu Leu Gly Leu Asn 435 440 445
- Leu Gly Ile Trp Gly Leu Ser Ala Arg Asp Asp Pro Ser His Pro Glu 450 455 460
- Ala Lys Gly Glu Ala Gly Ala Arg Phe Leu Met Ala Gly Val Gly Leu 465 470 475 480
- Ser Phe Leu Phe Ala Ala Pro Leu Ile Leu Leu Val Phe Ala Thr Phe 485 490 495
- Leu Val Gly Gly Asn Val Gln Thr Leu Val Cys Arg Ser Trp Glu Asn 500 505 510
- Gly Glu Leu Phe Glu Phe Ala Asp Thr Pro Gly Asn Leu Pro Pro Ser 515 520 525
- Met Asn Leu Ser Gln Leu Leu Gly Leu Arg Lys Asn Ile Ser Ile His 530 535 540
- Gln Ala Tyr Gln Gln Cys Lys Glu Gly Ala Ala Leu Trp Thr Val Leu 545 550 555 560
- Gln Leu Asn Asp Ser Tyr Asp Leu Glu Glu His Leu Asp Ile Asn Gln 565 570 575
- Tyr Thr Asn Lys Leu Arg Gln Glu Leu Gln Ser Leu Lys Val Asp Thr 580 585 590
- Gln Ser Leu Asp Leu Leu Ser Ser Ala Ala Arg Arg Asp Leu Glu Ala 595 600 605
- Leu Gln Ser Ser Gly Leu Gln Arg Ile His Tyr Pro Asp Phe Leu Val 610 620
- Gln Ile Gln Arg Pro Val Val Lys Thr Ser Met Glu Gln Leu Ala Gln 625 630 635 640
- Glu Leu Gln Gly Leu Ala Gln Ala Gln Asp Asn Ser Val Leu Gly Gln
  645 650 655
- Arg Leu Gln Glu Glu Ala Gln Gly Leu Arg Asn Leu His Gln Glu Lys 660 665 670
- Val Val Pro Gln Gln Ser Leu Val Ala Lys Leu Asn Leu Ser Val Arg

		675					680					685			
Ala	Leu 690	Glu	Ser	Ser	Ala	Pro 695	Asn	Leu	Gln	Leu	Glu 700	Thr	Ser	Asp	Va]
Leu 705	Ala	Asn	Val	Thr	Tyr 710	Leu	Lys	Gly	Glu	Leu 715	Pro	Ala	Trp	Ala	Ala 720
Arg	Ile	Leu	Arg	Asn 725	Val	Ser	Glu	Cys	Phe 730	Leu	Ala	Arg	Glu	Met 735	Gly
Tyr	Phe	Ser	Gln 740	Tyr	Val	Ala	Trp	Val 745	Arg	Glu	Glu	Val	Thr 750	Gln	Arg
Ile	Ala	Thr 755	Cys	Gln	Pro	Leu	Ser 760	Gly	Ala	Leu	Asp	Asn 765	Ser	Arg	Val
Ile	Leu 770	Cys	Asp	Met	Met	Ala 775	Asp	Pro	Trp	Asn	Ala 780	Phe	Trp	Phe	Cys
Leu 785	Ala	Trp	Cys	Thr	Phe 790	Phe	Leu	Ile	Pro	Ser 795	Ile	Ile	Phe	Ala	Va:
Lys	Thr	Ser	Lys	Tyr 805	Phe	Arg	Pro	Ile	Arg 810	Lys	Arg	Leu	Ser	Ser 815	Thi
Ser	Ser	Glu	Glu 820	Thr	Gln	Leu	Phe	His 825	Ile	Pro	Arg	Val	Thr 830	Ser	Let
Lys	Leu														
<21:	0 > 4: 1 > 1: 2 > Pi 3 > He	03 RT	sapie	ens											
<22	1> S 2> (	60)	qual	s an	y of	the	nati	ural	ly 0:	ccur	ring	L-a	mino	aci	ds
	0> 4 Glu		Cys	Leu 5	Ile	Phe	Leu	Leu	Leu 10	Ile	Leu	Glu	Phe	Cys 15	Glı
Ile	Phe	Asp	Cys 20	Leu	Arg	Lys	Cys	Tyr 25	Tyr	Arg	Leu	Thr	30 CÀa	Leu	Se:
Cys	Leu	Leu 35	Leu	Asn	Leu	Leu	Ile 40	Phe	Phe	Ser	Glu	Lys 45	Val	Val	Se:
Glu	Asn 50	Pro	Asn	Ile	Val	Val	Ile	Gly	Leu	Ala	Xaa 60	Val	Ile	Met	Le

Ser Ile Met Phe Ile Lys Trp Leu Leu Ile Leu Leu Ile Phe Leu Leu 65 70 75 80

Ser Phe Lys Asn Leu Gly Lys Glu Glu Glu Glu Arg Glu Asp Leu Leu 85 90 95

Asn Ser Leu Leu Thr Thr Ser 100

<210> 50

<211> 419

<212> PRT

<213> Homo sapiens

<400> 50

Met Lys Ala Leu Leu Leu Leu Val Leu Pro Trp Leu Ser Pro Ala Asn 1 5 10 15

Tyr Ile Asp Asn Val Gly Asn Leu His Phe Leu Tyr Ser Glu Leu Cys 20 25 30

Lys Gly Ala Ser His Tyr Gly Leu Thr Lys Asp Arg Lys Arg Arg Ser 35 40 45

Gln Asp Gly Cys Pro Asp Gly Cys Ala Ser Leu Thr Ala Thr Ala Pro 50 55 60

Ser Pro Glu Val Ser Ala Ala Ala Thr Ile Ser Leu Met Thr Asp Glu 65 70 75 80

Pro Gly Leu Asp Asn Pro Ala Tyr Val Ser Ser Ala Glu Asp Gly Gln
85 90 95

Pro Ala Ile Ser Pro Val Asp Ser Gly Arg Ser Asn Arg Thr Arg Ala
100 105 110

Arg Pro Phe Glu Arg Ser Thr Ile Arg Ser Arg Ser Phe Lys Lys Ile 115 120 125

Asn Arg Ala Leu Ser Val Leu Arg Arg Thr Lys Ser Gly Ser Ala Val 130 135 140

Ala Asn His Ala Asp Gln Gly Arg Glu Asn Ser Glu Asn Thr Thr Ala 145 150 155 160

Pro Glu Val Phe Pro Arg Leu Tyr His Leu Ile Pro Asp Gly Glu Ile 165 170 175

Thr Ser Ile Lys Ile Asn Arg Val Asp Pro Ser Glu Ser Leu Ser Ile 180 185 190

Arg Leu Val Gly Gly Ser Glu Thr Pro Leu Val His Ile Ile Gln 195 200 205

His Ile Tyr Arg Asp Gly Val Ile Ala Arg Asp Gly Arg Leu Leu Pro 210 215 220

Gly Asp Ile Ile Leu Lys Val Asn Gly Met Asp Ile Ser Asn Val Pro 225 230 235 240 His Asn Tyr Ala Val Arg Leu Leu Arg Gln Pro Cys Gln Val Leu Trp
245 250 255

Leu Thr Val Met Arg Glu Gln Lys Phe Arg Ser Arg Asn Asn Gly Gln 260 265 270

Ala Pro Asp Ala Tyr Arg Pro Arg Asp Asp Ser Phe His Val Ile Leu 275 280 285

Asn Lys Ser Ser Pro Glu Glu Gln Leu Gly Ile Lys Leu Val Arg Lys 290 295 300

Val Asp Glu Pro Gly Val Phe Ile Phe Asn Val Leu Asp Gly Gly Val 305 310 315 320

Ala Tyr Arg His Gly Gln Leu Glu Glu Asn Asp Arg Val Leu Ala Ile 325 330 335

Asn Gly His Asp Leu Arg Tyr Gly Ser Pro Glu Ser Ala Ala His Leu 340 345 350

Ile Gln Ala Ser Glu Arg Arg Val His Leu Val Val Ser Arg Gln Val
355 360 365

Arg Gln Arg Ser Pro Asp Ile Phe Gln Glu Ala Gly Trp Asn Ser Asn 370 380

Gly Ser Trp Ser Pro Gly Pro Gly Glu Arg Ser Asn Thr Pro Lys Pro 385 390 395 400

Leu His Pro Thr Ile Thr Cys His Glu Lys Val Val Asn Ile Gln Lys 405 410 415

Arg Pro Arg

<210> 51

<211> 468

<212> PRT

<213> Homo sapiens

<400> 51

Met Gly Arg Gly Trp Gly Phe Leu Phe Gly Leu Leu Gly Ala Val Trp 1 5 10

Leu Leu Ser Ser Gly His Gly Glu Glu Gln Pro Pro Glu Thr Ala Ala

Gln Arg Cys Phe Cys Gln Val Ser Gly Tyr Leu Asp Asp Cys Thr Cys 35 40 45

Asp Val Glu Thr Ile Asp Arg Phe Asn Asn Tyr Arg Leu Phe Pro Arg 50 55 60

Leu Gln Lys Leu Leu Glu Ser Asp Tyr Phe Arg Tyr Tyr Lys Val Asn 65 70 75 80

- Leu Lys Arg Pro Cys Pro Phe Trp Asn Asp Ile Ser Gln Cys Gly Arg 85 90 95
- Arg Asp Cys Ala Val Lys Pro Cys Gln Ser Asp Glu Val Pro Asp Gly
  100 105 110
- Ile Lys Ser Ala Ser Tyr Lys Tyr Ser Glu Glu Ala Asn Asn Leu Ile 115 120 125
- Glu Glu Cys Glu Gln Ala Glu Arg Leu Gly Ala Val Asp Glu Ser Leu 130 135 140
- Ser Glu Glu Thr Gln Lys Ala Val Leu Gln Trp Thr Lys His Asp Asp 145 150 155 160
- Ser Ser Asp Asn Phe Cys Glu Ala Asp Asp Ile Gln Ser Pro Glu Ala 165 170 175
- Glu Tyr Val Asp Leu Leu Asn Pro Glu Arg Tyr Thr Gly Tyr Lys 180 185 190
- Gly Pro Asp Ala Trp Lys Ile Trp Asn Val Ile Tyr Glu Glu Asn Cys 195 200 205
- Phe Lys Pro Gln Thr Ile Lys Arg Pro Leu Asn Pro Leu Ala Ser Gly 210 215 220
- Gln Gly Thr Ser Glu Glu Asn Thr Phe Tyr Ser Trp Leu Glu Gly Leu 225 230 235 240
- Cys Val Glu Lys Arg Ala Phe Tyr Arg Leu Ile Ser Gly Leu His Ala 245 250 255
- Ser Ile Asn Val His Leu Ser Ala Arg Tyr Leu Leu Gln Glu Thr Trp 260 265 270
- Leu Glu Lys Lys Trp Gly His Asn Ile Thr Glu Phe Gln Gln Arg Phe 275 280 285
- Asp Gly Ile Leu Thr Glu Gly Glu Gly Pro Arg Arg Leu Lys Asn Leu 290 295 300
- Tyr Phe Leu Tyr Leu Ile Glu Leu Arg Ala Leu Ser Lys Val Leu Pro 305 310 315 320
- Phe Phe Glu Arg Pro Asp Phe Gln Leu Phe Thr Gly Asn Lys Ile Gln 325 330 335
- Asp Glu Glu Asn Lys Met Leu Leu Leu Glu Ile Leu His Glu Ile Lys 340 345 350
- Ser Phe Pro Leu His Phe Asp Glu Asn Ser Phe Phe Ala Gly Asp Lys 355 360 365
- Lys Glu Ala His Lys Leu Lys Glu Asp Phe Arg Leu His Phe Arg Asn 370 375 380

Ile Ser Arg Ile Met Asp Cys Val Gly Cys Phe Lys Cys Arg Leu Trp 385 390 395 400

Gly Lys Leu Gln Thr Gln Gly Leu Gly Thr Ala Leu Lys Ile Leu Phe 405 410 415

Ser Glu Lys Leu Ile Ala Asn Met Pro Glu Ser Gly Pro Ser Tyr Glu
420 425 430

Phe His Leu Thr Arg Gln Glu Ile Val Ser Leu Phe Asn Ala Phe Gly 435 440 445

Arg Ile Ser Thr Ser Val Lys Glu Leu Glu Asn Phe Arg Asn Leu Leu 450 455 460

Gln Asn Ile His 465

<210> 52 <211> 347

<212> PRT

<213> Homo sapiens

<400> 52

Met Val Thr Arg Ala Gly Ala Gly Thr Ala Val Ala Gly Ala Val Val

Val Ala Leu Leu Ser Ala Ala Leu Ala Leu Tyr Gly Pro Pro Leu Asp 20 25 30

Ala Val Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His Ser Ile Lys
35 40 45

Asp Met Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile Pro Pro Leu
50 55 60

Ser Ser Thr Lys His Lys Gly Gln Asp Gly Arg Ile Gly Val Val Gly
65 70 75 80

Gly Cys Gln Glu Tyr Thr Gly Ala Pro Tyr Phe Ala Ala Ile Ser Ala 85 90 95

Leu Lys Val Gly Ala Asp Leu Ser His Val Phe Cys Ala Ser Ala Ala

Ala Pro Val Ile Lys Ala Tyr Ser Pro Glu Leu Ile Val His Pro Val 115 120 125

Leu Asp Ser Pro Asn Ala Val His Glu Val Glu Lys Trp Leu Pro Arg

Leu His Ala Leu Val Val Gly Pro Gly Leu Gly Arg Asp Asp Ala Leu 145 150 155 160

Leu Arg Asn Val Gln Gly Ile Leu Glu Val Ser Lys Ala Arg Asp Ile 165 170 175 Pro Val Val Ile Asp Ala Asp Gly Leu Trp Leu Val Ala Gln Gln Pro 180 185 190

Ala Leu Ile His Gly Tyr Arg Lys Ala Val Leu Thr Pro Asn His Val 195 200 205

Glu Phe Ser Arg Leu Tyr Asp Ala Val Leu Arg Gly Pro Met Asp Ser 210 215 220

Asp Asp Ser His Gly Ser Val Leu Arg Leu Ser Gln Ala Leu Gly Asn 225 230 235 240

Val Thr Val Val Gln Lys Gly Glu Arg Asp Ile Leu Ser Asn Gly Gln
245 250 255

Gln Val Leu Val Cys Ser Gln Glu Gly Ser Ser Arg Arg Cys Gly Gly
260 265 270

Gln Gly Asp Leu Leu Ser Gly Ser Leu Gly Val Leu Val His Trp Ala 275 280 285

Leu Leu Ala Gly Pro Gln Lys Thr Asn Gly Ser Ser Pro Leu Leu Val 290 295 300

Ala Ala Phe Gly Ala Cys Ser Leu Thr Arg Gln Cys Asn His Gln Ala 305 310 315 320

Phe Gln Lys His Gly Arg Ser Thr Thr Thr Ser Asp Met Ile Ala Glu 325 330 335

Val Gly Ala Ala Phe Ser Lys Leu Phe Glu Thr 340 345

<210> 53

<211> 523

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (248)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (249)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 53

Met Leu Arg Asn Gly Asn Lys Tyr Leu Leu Met Leu Val Ser Ile Ile
1 5 10 15

Met Leu Thr Ala Cys Ile Ser Gln Ser Arg Thr Ser Phe Ile Pro Pro

Gln Asp Arg Glu Ser Leu Leu Ala Glu Gln Pro Trp Pro His Asn Gly

- Phe Val Ala Ile Ser Trp His Asn Val Glu Asp Glu Ala Ala Asp Gln 50 55 60
- Arg Phe Met Ser Val Arg Thr Ser Ala Leu Arg Glu Gln Phe Ala Trp 65 70 75 80
- Leu Arg Glu Asn Gly Tyr Gln Pro Val Ser Ile Ala Gln Ile Arg Glu 85 90 95
- Ala His Arg Gly Gly Lys Pro Leu Pro Glu Lys Ala Val Val Leu Thr
- Phe Asp Asp Gly Tyr Gln Ser Phe Tyr Thr Arg Val Phe Pro Ile Leu 115 120 125
- Gln Ala Phe Gln Trp Pro Ala Val Trp Ala Pro Val Gly Ser Trp Val 130 135 140
- Asp Thr Pro Ala Asp Lys Gln Val Lys Phe Gly Asp Glu Leu Val Asp 145 150 155 160
- Arg Glu Tyr Phe Ala Thr Trp Gln Gln Val Arg Glu Val Ala Arg Ser 165 170 175
- Arg Leu Val Glu Leu Ala Ser His Thr Trp Asn Ser His Tyr Gly Ile 180 185 190
- Gln Ala Asn Ala Thr Gly Ser Leu Leu Pro Val Tyr Val Asn Arg Ala 195 200 205
- Tyr Phe Thr Asp His Ala Arg Tyr Glu Thr Ala Ala Glu Tyr Arg Glu 210 215 220
- Arg Ile Arg Leu Asp Ala Val Lys Met Thr Glu Tyr Leu Arg Thr Lys 225 230 235 240
- Val Glu Val Asn Pro His Val Xaa Xaa Trp Pro Tyr Gly Glu Ala Asn 245 250 255
- Gly Ile Ala Ile Glu Glu Leu Lys Lys Leu Gly Tyr Asp Met Phe Phe 260 265 270
- Thr Leu Glu Ser Gly Leu Ala Asn Ala Ser Gln Leu Asp Ser Ile Pro 275 280 285
- Arg Val Leu Ile Ala Asn Asn Pro Ser Leu Lys Glu Phe Ala Gln Gln 290 295 300
- Ile Ile Thr Val Gln Glu Lys Ser Pro Gln Arg Ile Met His Ile Asp 305 310 315
- Leu Asp Tyr Val Tyr Asp Glu Asn Leu Gln Gln Met Asp Arg Asn Ile 325 330 335
- Asp Val Leu Ile Gln Arg Val Lys Asp Met Gln Ile Ser Thr Val Tyr 340 345 350

Leu Gln Ala Phe Ala Asp Pro Asp Gly Asp Gly Leu Val Lys Glu Val
355 360 365

Trp Phe Pro Asn Arg Leu Leu Pro Met Lys Ala Asp Ile Phe Ser Arg 370 375 380

Val Ala Trp Gln Leu Arg Thr Arg Ser Gly Val Asn Ile Tyr Ala Trp 385 390 395 400

Met Pro Val Leu Ser Trp Asp Leu Asp Pro Thr Leu Thr Arg Val Lys
405 410 415

Tyr Leu Pro Thr Gly Glu Lys Lys Ala Gln Ile His Pro Glu Gln Tyr 420 425 430

His Arg Leu Ser Pro Phe Asp Asp Arg Val Arg Ala Gln Val Gly Met
435 440 445

Leu Tyr Glu Asp Leu Ala Gly His Ala Ala Phe Asp Gly Ile Leu Phe 450 455 460

His Asp Asp Ala Leu Leu Ser Asp Tyr Glu Asp Ala Ser Ala Pro Ala 465 470 475 480

Ile Thr Ala Tyr Gln Gln Ala Gly Phe Ser Gly Ser Leu Ser Glu Ile 485 490 495

Arg Gln Asn Pro Glu Gln Phe Lys Gln Trp Ala Arg Phe Lys Ser Arg 500 505 510

Ala Leu Thr Asp Phe Thr Leu Glu Leu Ser Ala 515 520

<210> 54

<211> 220

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (170)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 54

Met Ala Thr Val Arg Ala Ser Leu Arg Gly Ala Leu Leu Leu Leu 1 5 10 15

Ala Val Ala Gly Val Ala Glu Val Ala Gly Gly Leu Ala Pro Gly Ser

Ala Gly Ala Leu Cys Cys Asn His Ser Lys Asp Asn Gln Met Cys Arg

Asp Val Cys Glu Gln Ile Phe Ser Ser Lys Ser Glu Ser Arg Leu Lys 50 55 60

His Leu Leu Gln Arg Ala Pro Asp Tyr Cys Pro Glu Thr Met Val Glu

65			70					75					80
Ile Trp A	sn Cys	Met 85	Asn	Ser	Ser	Leu	Pro 90	Gly	Val	Phe	Lys	Lys 95	Ser
Asp Gly T	rp Val 100	Gly	Leu	Gly	Cys	Cys 105	Glu	Leu	Ala	Ile	Ala 110	Leu	Glu
Cys Arg G 1	ln Ala 15	Cys	Lys	Gln	Ala 120	Ser	Ser	Lys	Asn	Asp 125	Ile	Ser	Lys
Val Cys A	rg Lys	Glu	Tyr	Glu 135	Asn	Ala	Leu	Phe	Ser 140	Cys	Ile	Ser	Arg
Asn Glu M	et Gly	Ser	Val 150	Cys	Cys	Ser	Tyr	Ala 155	Gly	His	His	Thr	Asn 160
Cys Arg G	lu Tyr	Cys 165	Gln	Ala	Ile	Phe	Xaa 170	Thr	Asp	Ser	Ser	Pro 175	Gly
Pro Ser G	ln Ile 180	Lys	Ala	Val	Glu	Asn 185	Tyr	Cys	Ala	Ser	Ile 190	Ser	Pro
Gln Leu I 1	le His 95	Cys	Val	Asn	Asn 200	Tyr	Thr	Gln	Ser	Tyr 205	Pro	Met	Arg
Asn Pro T	hr Asp	Ser	Arg	Ser 215	Val	Leu	Ser	Asp	Ile 220				
<210> 55 <211> 93 <212> PRT <213> Homo sapiens													
<400> 55 Met Gly A	la Ala	Leu 5	Leu	Trp	Glu	Val	Leu 10	Val	Gly	Gly	Thr	Arg 15	Ala
Leu Thr A	sn Leu 20	Leu	Leu	Leu	Gly	Gly 25	Thr	Ser	Pro	Gly	Arg 30	Thr	Ser
Gln Leu G	ln Val 35	Leu	Arg	Leu	Pro 40	Val	Ala	Ala	Glu	Pro 45	Val	Pro	Leu
Ala Phe S	er Ser	His	Asn	Gly 55	Glu	Gly	Asp	Phe	Gly 60	Ile	Leu	Thr	Asn
Ser Ser L	eu Gly	Leu	Ser 70	Leu	Leu	Pro	Ser	Thr 75	Ala	Ser	Arg	Phe	Ser 80
Ser Ile C	ys Ala	Tyr 85	Tyr	Leu	Arg	Thr	Val 90	Ser	Ala	Pro			

<210> 56 <211> 79 <212> PRT

<213 > Homo sapiens

<400> 56

Met Val Pro Trp Phe Leu Leu Trp Ser Ser Phe Phe Ile Gly Thr Ser 1 5 10 15

Ser Ala Tyr Ile Asp Lys Gln Val Lys Ile Val Arg Gln Lys Ser Thr 20 25 30

Tyr Trp Gly Glu Lys Phe Leu Lys Arg Cys Glu Arg Glu Arg Ile Lys
35 40 45

Glu Ser Glu Gln Ser Gly Lys Arg Gly Glu Leu Arg Glu Arg Gln Gln
50 55 60

Lys Ser Asn Glu Ala Gly Cys Ile Tyr Gln Ser Ile Ile Leu Ile 65 70 75

<210> 57

<211> 74

<212> PRT

<213 > Homo sapiens

<400> 57

Met Ala Val Val Pro Thr Trp Cys Ser Thr Val Leu Leu Thr Leu Cys

1 10 15

Pro Gln Leu Ala Trp Trp Gln Val Trp Arg Met Cys Arg Tyr Thr Thr 20 25 30

Gly Lys Met Pro Ser Ser Pro Ser Ile Ser Pro Pro Ser Ser Arg Val

Pro Gly Ser Leu Met Gly Lys Ser Ser Arg Val Thr Ser Arg Ala 50 55 60

Arg Trp Asn Leu Gly Pro Cys Gly Thr Val 65 70

<210> 58

<211> 446

<212> PRT

<213> Homo sapiens

<400> 58

Met Thr Ser Lys Glu Ile Ile Leu Gly Leu Cys Leu Leu Ser Leu Val
1 5 10 15

Leu Ser Met Ile Leu Met Val Ile Ile Arg Tyr Ile Ser Arg Val Leu 20 25 30

Val Trp Ile Leu Thr Ile Leu Val Ile Leu Gly Ser Leu Gly Gly Thr 35 40 ' 45

Gly Val Leu Trp Trp Pro Tyr Ala Lys Gln Arg Arg Ser Pro Lys Glu
50 55 60

Thr Val Thr Pro Glu Gln Leu Gln Ile Ala Glu Asp Asn Leu Arg Ala 65 70 75 80

Leu Leu Ile Tyr Ala Ile Ser Ala Thr Val Phe Thr Val Ile Leu Phe
85 90 95

Leu Ile Met Leu Val Met Arg Lys Arg Val Ala Leu Thr Ile Ala Leu 100 105 110

Phe His Val Ala Gly Lys Val Phe Ile His Leu Pro Leu Leu Val Phe 115 120 125

Gln Pro Phe Trp Thr Phe Phe Ala Leu Val Leu Phe Trp Val Tyr Trp 130 135 140

Ile Met Thr Leu Leu Phe Leu Gly Thr Thr Gly Ser Pro Val Gln Asn 145 150 155 160

Glu Gln Gly Phe Val Glu Phe Lys Ile Ser Gly Pro Leu Gln Tyr Met 165 170 175

Trp Trp Tyr His Val Val Gly Leu Ile Trp Ile Ser Glu Phe Ile Leu 180 185 190

Ala Cys Gln Gln Met Thr Val Ala Gly Ala Val Val Thr Tyr Tyr Phe 195 200 205

Thr Arg Asp Lys Arg Asn Leu Pro Phe Thr Pro Ile Leu Ala Ser Val 210 215 220

Asn Arg Leu Ile Arg Tyr His Leu Gly Thr Val Ala Lys Gly Ser Phe 225 230 235 240

Ile Ile Thr Leu Val Lys Ile Pro Arg Met Ile Leu Met Tyr Ile His
245 250 255

Ser Gln Leu Lys Gly Lys Glu Asn Ala Cys Ala Arg Cys Val Leu Lys 260 265 270

Ser Cys Ile Cys Cys Leu Trp Cys Leu Glu Lys Cys Leu Asn Tyr Leu 275 280 285

Asn Gln Asn Ala Tyr Thr Ala Thr Ala Ile Asn Ser Thr Asn Phe Cys 290 295 300

Thr Ser Ala Lys Asp Ala Phe Val Ile Leu Val Glu Asn Ala Leu Arg 305 310 315 320

Val Ala Thr Ile Asn Thr Val Gly Asp Phe Met Leu Phe Leu Gly Lys 325 330 335

Val Leu Ile Val Cys Ser Thr Gly Leu Ala Gly Ile Met Leu Leu Asn 340 345 350

Tyr Gln Gln Asp Tyr Thr Val Trp Val Leu Pro Leu Ile Ile Val Cys 355 360 365

<222> (819)

```
Leu Phe Ala Phe Leu Asp Ala His Cys Phe Leu Ser Ile Tyr Glu Met
                        375
    370
Val Val Asp Val Leu Phe Leu Cys Phe Ala Ile Asp Thr Lys Tyr Asn
                                        395
Asp Gly Ser Pro Gly Arg Glu Phe Tyr Met Asp Lys Val Leu Met Glu
                                    410
Phe Val Glu Asn Ser Arg Lys Ala Met Lys Glu Ala Gly Lys Gly Gly
Val Ala Asp Ser Arg Glu Leu Lys Pro Met Leu Lys Lys Arg
                            440
<210> 59
<211> 58
<212> PRT
<213> Homo sapiens
<400> 59
Met Leu Phe Phe Tyr Leu Asn Tyr Leu Met Ile Ala Leu Leu Leu
Phe Lys Lys Ile Gln Lys Ser Asn Lys Gly Lys Asp Gly Asn Leu Met
Ile Glu Gly Val Ala Cys Val Thr Val Gly Gly Lys Glu Tyr Ile Asp
Phe Ala Leu Val Asp Ile Phe Met Leu Val
      50
 <210> 60
 <211> 941
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (807)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (809)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
```

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 60

Met Val Phe Leu Pro Leu Lys Trp Ser Leu Ala Thr Met Ser Phe Leu 1 5 10 15

Leu Ser Ser Leu Leu Ala Leu Leu Thr Val Ser Thr Pro Ser Trp Cys
20 25 30

Gln Ser Thr Glu Ala Ser Pro Lys Arg Ser Asp Gly Thr Pro Phe Pro 35 40 45

Trp Asn Lys Ile Arg Leu Pro Glu Tyr Val Ile Pro Val His Tyr Asp
50 55 60

Leu Leu Ile His Ala Asn Leu Thr Thr Leu Thr Phe Trp Gly Thr Thr 65 70 75 80

Lys Val Glu Ile Thr Ala Ser Gln Pro Thr Ser Thr Ile Ile Leu His
85 90 95

Ser His His Leu Gln Ile Ser Arg Ala Thr Leu Arg Lys Gly Ala Gly
100 105 110

Glu Arg Leu Ser Glu Glu Pro Leu Gln Val Leu Glu His Pro Pro Gln 115 120 125

Glu Gln Ile Ala Leu Leu Ala Pro Glu Pro Leu Leu Val Gly Leu Pro 130 135 140

Tyr Thr Val Val Ile His Tyr Ala Gly Asn Leu Ser Glu Thr Phe His 145 150 155 160

Gly Phe Tyr Lys Ser Thr Tyr Arg Thr Lys Glu Gly Glu Leu Arg Ile 165 170 175

Leu Ala Ser Thr Gln Phe Glu Pro Thr Ala Ala Arg Met Ala Phe Pro 180 185 190

Cys Phe Asp Glu Pro Ala Phe Lys Ala Ser Phe Ser Ile Lys Ile Arg 195 200 205

Arg Glu Pro Arg His Leu Ala Ile Ser Asn Met Pro Leu Val Lys Ser 210 215 220

Val Thr Val Ala Glu Gly Leu Ile Glu Asp His Phe Asp Val Thr Val. 225 230 235 240

Lys Met Ser Thr Tyr Leu Val Ala Phe Ile Ile Ser Asp Phe Glu Ser 245 250 255

Val Ser Lys Ile Thr Lys Ser Gly Val Lys Val Ser Val Tyr Ala Val
260 265 270

Pro Asp Lys Met Asn Gln Ala Asp Tyr Ala Leu Asp Ala Ala Val Thr 275 280 285

Leu Leu Glu Phe Tyr Glu Asp Tyr Phe Ser Ile Pro Tyr Pro Leu Pro

Lys 305	Gln	Asp	Leu	Ala	Ala 310	Ile	Pro	Asp	Phe	Gln 315	Ser	Gly	Ala	Met	Glu 320
Asn	Trp	Gly	Leu	Thr 325	Thr	Tyr	Arg	Glu	Ser 330	Ala	Leu	Leu	Phe	Asp 335	Ala
Glu	Lys	Ser	Ser 340	Ala	Ser	Ser	Lys	Leu 345	Gly	Ile	Thr	Met	Thr 350	Val	Ala
His	Glu	Leu 355	Ala	His	Gln	Trp	Phe 360	Gly	Asn	Leu	Val	Thr 365	Met	Glu	Trp
Trp	Asn 370	Asp	Leu	Trp	Leu	Asn 375	Glu	Gly	Phe	Ala	Lys 380	Phe	Met	Glu	Phe
Val 385	Ser	Val	Ser	Val	Thr 390	His	Pro	Glu	Leu	Lys 395	Val	Gly	Asp	Tyr	Phe 400
Phe	Gly	Lys	Cys	Phe 405	Asp	Ala	Met	Glu	Val 410	Asp	Ala	Leu	Asn	Ser 415	Ser
His	Pro	Val	Ser 420	Thr	Pro	Val	Glu	Asn 425	Pro	Ala	Gln	Ile	Arg 430	Glu	Met
Phe	Asp	Asp 435	Val	Ser	Tyr	Asp	Lys 440	Gly	Ala	Cys	Ile	Leu 445	Asn	Met	Leu
Arg	Glu 450	Tyr	Leu	Ser	Ala	Asp 455	Ala	Phe	Lys	Ser	Gly 460	Ile	Val	Gln	Tyr
Leu 465	Gln	Lys	His	Ser	Tyr 470	Lys	Asn	Thr	Lys	Asn 475	Glu	Asp	Leu	Trp	Asp 480
Ser	Met	Ala	Ser	Ile 485	Cys	Pro	Thr	Asp	Gly 490	Val	Lys	Gly	Met	Asp 495	Gly
Phe	Cys	Ser	Arg 500	Ser	Gln	His	Ser	Ser 505	Ser	Ser	Ser	His	Trp 510	His	Gln
Glu	Gly	Val 515	Asp	Val	Lys	Thr	Met 520	Met	Asn	Thr	Trp	Thr 525	Leu	Gln	Arg
Gly	Phe 530	Pro	Leu	Ile	Thr	Ile 535	Thr	Val	Arg	Gly	Arg 540	Asn	Val	His	Met
Lys 545	Gln	Glu	His	Tyr	Met 550	Lys	Gly	Ser	Asp	Gly 555	Ala	Pro	Asp	Thr	Gly 560
Tyr	Leu	Trp	His	Val 565	Pro	Leu	Thr	Phe	Ile 570	Thr	Ser	Lys	Ser	Asp 575	Met
Val	His	Arg	Phe 580	Leu	Leu	Lys	Thr	Lys 585	Thr	Asp	Val	Leu	Ile 590	Leu	Pro
Glu	Glu	Val	Glu	Trp	Ile	Lys	Phe	Asn	Val	Gly	Met	Asn	Gly	Tyr	Tyr

- Ile Val His Tyr Glu Asp Asp Gly Trp Asp Ser Leu Thr Gly Leu Leu 610 620
- Lys Gly Thr His Thr Ala Val Ser Ser Asn Asp Arg Ala Ser Leu Ile 625 630 635 640
- Asn Asn Ala Phe Gln Leu Val Ser Ile Gly Lys Leu Ser Ile Glu Lys 645 650 655
- Ala Leu Asp Leu Ser Leu Tyr Leu Lys His Glu Thr Glu Ile Met Pro 660 665 670
- Val Phe Gln Gly Leu Asn Glu Leu Ile Pro Met Tyr Lys Leu Met Glu 675 680 685
- Lys Arg Asp Met Asn Glu Val Glu Thr Gln Phe Lys Ala Phe Leu Ile 690 695 700
- Arg Leu Leu Arg Asp Leu Ile Asp Lys Gln Thr Trp Thr Asp Glu Gly 705 710 715 720
- Ser Val Ser Glu Arg Met Leu Arg Ser Glu Leu Leu Leu Leu Ala Cys 725 730 735
- Val His Asn Tyr Gln Pro Cys Val Gln Arg Ala Glu Gly Tyr Phe Arg 740 745 750
- Lys Trp Lys Glu Ser Asn Gly Asn Leu Ser Leu Pro Val Asp Val Thr
  755 760 765
- Leu Ala Val Phe Ala Val Gly Ala Gln Ser Thr Glu Gly Trp Asp Phe 770 780
- Leu Tyr Ser Lys Tyr Gln Phe Ser Leu Ser Ser Thr Glu Lys Ser Gln 785 790 795 800
- Ile Glu Phe Ala Leu Cys Xaa Pro Xaa Asn Lys Glu Lys Leu Xaa Trp 805 810 815
- Leu Leu Xaa Glu Ser Phe Lys Gly Asp Lys Ile Lys Thr Gln Glu Phe 820 825 830
- Pro Gln Ile Leu Thr Leu Ile Gly Arg Asn Pro Val Gly Tyr Pro Leu 835 840 845
- Ala Trp Gln Phe Leu Arg Lys Asn Trp Asn Lys Leu Val Gln Lys Phe 850 860
- Glu Leu Gly Ser Ser Ser Ile Ala His Met Val Met Gly Thr Thr Asn 865 870 875 880
- Gln Phe Ser Thr Arg Thr Arg Leu Glu Glu Val Lys Gly Phe Phe Ser 885 890 895
- Ser Leu Lys Glu Asn Gly Ser Gln Leu Arg Cys Val Gln Gln Thr Ile 900 905 910

Glu Thr Ile Glu Glu Asn Ile Gly Trp Met Asp Lys Asn Phe Asp Lys 915 920 925

Ile Arg Val Trp Leu Gln Ser Glu Lys Leu Glu Arg Met 930 935 940

<210> 61

<211> 549

<212> PRT

<213> Homo sapiens

<400> 61

Met Trp Leu Pro Leu Val Leu Leu Leu Ala Val Leu Leu Leu Ala Val 1 5 10 15

Leu Cys Lys Val Tyr Leu Gly Leu Phe Ser Gly Ser Ser Pro Asn Pro 20 25 30

Phe Ser Glu Asp Val Lys Arg Pro Pro Ala Pro Leu Val Thr Asp Lys
35 40 45

Glu Ala Arg Lys Lys Val Leu Lys Gln Gly Ile His Tyr Ile Gly Arg
50 55 60

Met Glu Glu Gly Ser Ile Gly Arg Phe Ile Leu Asp Gln Ile Thr Glu 65 70 75 80

Gly Gln Leu Asp Trp Ala Pro Leu Ser Ser Pro Phe Asp Ile Met Val 85 90 95

Leu Glu Gly Pro Asn Gly Arg Lys Glu Tyr Pro Met Tyr Ser Gly Glu
100 105 110

Lys Ala Tyr Ile Gln Gly Leu Lys Glu Lys Phe Pro Gln Glu Glu Ala 115 120 125

Ile Ile Asp Lys Tyr Ile Lys Leu Val Lys Val Val Ser Ser Gly Ala 130 135 140

Pro His Ala Ile Leu Leu Lys Phe Leu Pro Leu Pro Val Val Gln Leu 145 150 155 160

Leu Asp Arg Cys Gly Leu Leu Thr Arg Phe Ser Pro Phe Leu Gln Ala 165 170 175

Ser Thr Gln Ser Leu Ala Glu Val Leu Gln Gln Leu Gly Ala Ser Ser 180 185 190

Glu Leu Gln Ala Val Leu Ser Tyr Ile Phe Pro Thr Tyr Gly Val Thr
195 200 205

Pro Asn His Ser Ala Phe Ser Met His Ala Leu Leu Val Asn His Tyr 210 215 220

Met Lys Gly Gly Phe Tyr Pro Arg Gly Gly Ser Ser Glu Ile Ala Phe 225 230 235 240

- His Thr Ile Pro Val Ile Gln Arg Ala Gly Gly Ala Val Leu Thr Lys 245 250 255
- Ala Thr Val Gln Ser Val Leu Leu Asp Ser Ala Gly Lys Ala Cys Gly
  260 265 270
- Val Ser Val Lys Lys Gly His Glu Leu Val Asn Ile Tyr Cys Pro Ile 275 280 285
- Val Val Ser Asn Ala Gly Leu Phe Asn Thr Tyr Glu His Leu Leu Pro 290 295 300
- Gly Asn Ala Arg Cys Leu Pro Gly Val Lys Gln Gln Leu Gly Thr Val 305 310 315 320
- Arg Pro Gly Leu Gly Met Thr Ser Val Phe Ile Cys Leu Arg Gly Thr 325 330 335
- Lys Glu Asp Leu His Leu Pro Ser Thr Asn Tyr Tyr Val Tyr Tyr Asp 340 345 350
- Thr Asp Met Asp Gln Ala Met Glu Arg Tyr Val Ser Met Pro Arg Glu 355 360 365
- Glu Ala Ala Glu His Ile Pro Leu Leu Phe Phe Ala Phe Pro Ser Ala 370 375 380
- Lys Asp Pro Thr Trp Glu Asp Arg Phe Pro Gly Arg Ser Thr Met Ile 385 390 395 400
- Met Leu Ile Pro Thr Ala Tyr Glu Trp Phe Glu Glu Trp Gln Ala Glu 405 410 415
- Leu Lys Gly Lys Arg Gly Ser Asp Tyr Glu Thr Phe Lys Asn Ser Phe 420 425 430
- Val Glu Ala Ser Met Ser Val Val Leu Lys Leu Phe Pro Gln Leu Glu 435 440 445
- Gly Lys Val Glu Ser Val Thr Ala Gly Ser Pro Leu Thr Asn Gln Phe 450 455 460
- Tyr Leu Ala Ala Pro Arg Gly Ala Cys Tyr Gly Ala Asp His Asp Leu 465 470 475 480
- Gly Arg Leu His Pro Cys Val Met Ala Ser Leu Arg Ala Gln Ser Pro 485 490 495
- Ile Pro Asn Leu Tyr Leu Thr Gly Gln Asp Ile Phe Thr Cys Gly Leu 500 505 510
- Val Gly Ala Leu Gln Gly Ala Leu Leu Cys Ser Ser Ala Ile Leu Lys 515 520 525
- Arg Asn Leu Tyr Ser Asp Leu Lys Asn Leu Asp Ser Arg Ile Arg Ala 530 535 540
- Gln Lys Lys Lys Asn

<210> 62

<211> 326

<212> PRT

<213> Homo sapiens

<400> 62

Met Arg Thr Glu Ala Gln Val Pro Ala Leu Gln Pro Pro Glu Pro Gly
1 5 10 15

Leu Glu Gly Ala Met Gly His Arg Thr Leu Val Leu Pro Trp Val Leu
20 25 30

Leu Thr Leu Cys Val Thr Ala Gly Thr Pro Glu Val Trp Val Gln Val
35 40 45

Arg Met Glu Ala Thr Glu Leu Ser Ser Phe Thr Ile Arg Cys Gly Phe 50 60

Leu Gly Ser Gly Ser Ile Ser Leu Val Thr Val Ser Trp Gly Gly Pro 65 70 75 80

Asp Gly Ala Gly Gly Thr Thr Leu Ala Val Leu His Pro Glu Arg Gly 85 90 95

Ile Arg Gln Trp Ala Pro Ala Arg Gln Ala Arg Trp Glu Thr Gln Ser

Ser Ile Ser Leu Ile Leu Glu Gly Ser Gly Ala Ser Ser Pro Cys Ala 115 120 125

Asn Thr Thr Phe Cys Cys Lys Phe Ala Ser Phe Pro Glu Gly Ser Trp

Glu Ala Cys Gly Ser Leu Pro Pro Ser Ser Asp Pro Gly Leu Ser Ala 145 150 155 160

Pro Pro Thr Pro Ala Pro Ile Leu Arg Ala Asp Leu Ala Gly Ile Leu 165 170 175

Gly Val Ser Gly Val Leu Leu Phe Gly Cys Val Tyr Leu Leu His Leu 180 185 190

Leu Arg Arg His Lys His Arg Pro Ala Pro Arg Leu Gln Pro Ser Arg 195 200 205

Thr Ser Pro Gln Ala Pro Arg Ala Arg Ala Trp Ala Pro Ser Gln Ala 210 215 220

Ser Gln Ala Ala Leu His Val Pro Tyr Ala Thr Ile Asn Thr Ser Cys 225 230 235 240

Arg Pro Ala Thr Leu Asp Thr Ala His Pro His Gly Gly Pro Ser Trp
245 250 250

Trp Ala Ser Leu Pro Thr His Ala Ala His Arg Pro Gln Gly Pro Ala

260 265 270 Ala Trp Ala Ser Thr Pro Ile Pro Ala Arg Gly Ser Phe Val Ser Val 280 Glu Asn Gly Leu Tyr Ala Gln Ala Gly Glu Arg Pro Pro His Thr Gly Pro Gly Leu Thr Leu Phe Pro Asp Pro Arg Gly Pro Arg Ala Met Glu 315 Gly Pro Leu Gly Val Arg 325 <210> 63 <211> 267 <212> PRT <213> Homo sapiens <400> 63 Met Ala Pro Trp Ala Leu Leu Ser Pro Gly Val Leu Val Arg Thr Gly His Thr Val Leu Thr Trp Gly Ile Thr Leu Val Leu Phe Leu His Asp Thr Glu Leu Arg Gln Trp Glu Glu Gln Gly Glu Leu Leu Pro Leu Thr Phe Leu Leu Val Leu Gly Ser Leu Leu Tyr Leu Ala Val Ser Leu Met Asp Pro Gly Tyr Val Asn Val Gln Pro Gln Pro Gln Glu Glu Leu Lys Glu Glu Gln Thr Ala Met Val Pro Pro Ala Ile Pro Leu Arg Arg Cys Arg Tyr Cys Leu Val Leu Gln Pro Leu Arg Ala Arg His Cys Arg Glu Cys Arg Arg Cys Val Arg Arg Tyr Asp His His Cys Pro Trp Met Glu Asn Cys Val Gly Glu Arg Asn His Pro Leu Phe Val Val

Tyr Leu Ala Leu Gln Leu Val Val Leu Leu Trp Gly Leu Tyr Leu Ala 145 150 155 160

Trp Ser Gly Leu Arg Phe Phe Gln Pro Trp Gly Leu Trp Leu Arg Ser

Ser Gly Leu Leu Phe Ala Thr Phe Leu Leu Ser Leu Phe Ser Leu 180 185 190

Val Ala Ser Leu Leu Val Ser His Leu Tyr Leu Val Ala Ser Asn

195 200 205

Thr Thr Trp Glu Phe Ile Ser Ser His Arg Ile Ala Tyr Leu Arg 210 215 220

Gln Arg Pro Ser Asn Pro Phe Asp Arg Gly Leu Thr Arg Asn Leu Ala 225 230 235 240

His Phe Phe Cys Gly Trp Pro Ser Gly Ser Trp Glu Thr Leu Trp Ala 245 250 255

Glu Glu Glu Glu Gly Ser Ser Pro Ala Val 260 265

<210> 64

<211> 62

<212> PRT

<213> Homo sapiens

<400> 64

Met Lys Ser Gln Ser Pro Leu Arg Ser Met Leu Leu Val Gly Gly Leu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Val Ser Val Leu Ala Glu His Leu Gln His Pro Gln Ser Arg Gln Pro 20 25 30

Pro Leu Ser His Leu Ser Ser His Leu Thr Trp Asp Ala Gln Val Glu 35 40 45

Leu Asp Arg Ile Phe Leu Ser Ile Arg Pro Pro Glu Val Pro 50 55 60

<210> 65

<211> 46

<212> PRT

<213> Homo sapiens

<400> 65

Met Asn Val Thr Val Thr Leu Pro Lys Tyr His Leu Ala Leu Ile Trp

1 10 15

Leu Leu Phe His Phe Gly Trp Ala Leu Leu Ser Val Cys Ser Lys Thr
20 25 30

Val Leu Met Asn Leu Ser Asn Val His Asn Ala Val Ile Gly
35 40 45

<210> 66

<211> 84

<212> PRT

<213> Homo sapiens

<400> 66

Met Tyr Leu Gly Arg Arg Trp Phe Phe Leu Tyr Leu Cys Pro Phe Pro 1 5 10 Ser Ser Ala Leu Pro Thr Phe Cys Ala Leu Leu His Ala His Thr Ser 20 25 30

Phe Cys Met Ile Asn Gly Leu Gly His Ala Ala His Ser Leu Ala Tyr 35 40 45

Glu Thr Phe Thr Leu Ser Ala Glu Gly Ala Arg Asp Pro Pro Lys Ala 50 60

Thr Glu Cys Ser Ile Cys Ser Leu Pro Ser Phe Cys Ile Pro Gly Phe 65 70 75 80

Cys Ile Leu Phe

<210> 67

<211> 44

<212> PRT

<213> Homo sapiens

<400> 67

Met Gly Leu Phe Pro Lys Leu Leu Ser Leu Ile Phe Gln Ile Val Tyr 1 5 10

Phe Leu Pro Ser Ala Leu Glu Met Thr Val Ala Ser Pro Ser Cys His
20 25 30

Phe Cys Asp Ala Leu Glu Ser Leu Phe Phe Ser Asn 35

<210> 68

<211> 55

<212> PRT

<213> Homo sapiens

<400> 68

Met Gln Thr Cys Gln Ala Ile Lys Gly Ser Cys Leu Ser Val Ser Leu 1 5 10 15

Ile Leu Leu Cys Ala Ala Ser Thr Glu Gly Phe Arg Ala Pro Asp Leu 20 25 30

Phe Cys Val Leu Arg Lys Ser Lys Cys Leu Ala Arg Thr Gln Pro Phe 35 40 45

Phe Leu His Pro Glu Thr Ser 50 55

<210> 69

<211> 83

<212> PRT

<213> Homo sapiens

<220>

```
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (64)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (78)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 69
Met Gly His Phe Ala Pro Gly Val Phe His Leu Gly Ile Met Phe Thr
Gly Leu Ile Pro Val Val Val Cys Ser Ser Pro Ala Phe Leu Pro Val
Ala Glu Tyr Leu Ile His Cys Val Gly Ile His His Xaa Leu Val Asp
Gly Thr Phe Gly Val Val Phe His Leu Leu Val Met Met Gly Xaa Xaa
Pro Gln Gln Thr Phe Val Leu Gln Ser Phe Ala Val Ala Xaa Gly Arg
Phe Phe Leu
<210> 70
<211> 434
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (381)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 70
Met Ala Leu Thr Ala Pro Ser Leu Ser Leu Asp Ala Arg Gln Leu Trp
Asp Ser Pro Glu Thr Ala Pro Ala Ala Arg Thr Pro Gln Ser Pro Ala
Pro Cys Val Leu Leu Arg Ala Gln Arg Ser Leu Ala Pro Glu Pro Lys
```

- Glu Pro Leu Ile Pro Ala Ser Pro Lys Ala Glu Pro Ile Trp Glu Leu 50 55 60
- Pro Thr Arg Ala Pro Arg Leu Ser Ile Gly Asp Leu Asp Phe Ser Asp 65 70 75 80
- Leu Gly Glu Asp Glu Asp Gln Asp Met Leu Asn Val Glu Ser Val Glu
  85 90 95
- Ala Gly Lys Asp Ile Pro Ala Pro Ser Pro Pro Leu Pro Leu Leu Ser 100 105 110
- Gly Val Pro Pro Pro Pro Pro Leu Pro Pro Pro Pro Pro Ile Lys Gly
  115 120 125
- Pro Phe Pro Pro Pro Pro Leu Pro Leu Ala Ala Pro Leu Pro His 130 135 140
- Ser Val Pro Asp Ser Ser Ala Leu Pro Thr Lys Arg Lys Thr Val Lys 145 150 155 160
- Leu Phe Trp Arg Glu Leu Lys Leu Ala Gly Gly His Gly Val Ser Ala 165 170 175
- Ser Arg Phe Gly Pro Cys Ala Thr Leu Trp Ala Ser Leu Asp Pro Val 180 185 190
- Ser Val Asp Thr Ala Arg Leu Glu His Leu Phe Glu Ser Arg Ala Lys 195 200 205
- Glu Val Leu Pro Ser Lys Lys Ala Gly Glu Gly Arg Arg Thr Met Thr 210 215 220
- Thr Val Leu Asp Pro Lys Arg Ser Asn Ala Ile Asn Ile Gly Leu Thr 225 230 235 240
- Thr Leu Pro Pro Val His Val Ile Lys Ala Ala Leu Leu Asn Phe Asp 245 250 255
- Glu Phe Ala Val Ser Lys Asp Gly Ile Glu Lys Leu Leu Thr Met Met 260 265 270
- Pro Thr Glu Glu Arg Gln Lys Ile Glu Glu Ala Gln Leu Ala Asn 275 280 285
- Pro Asp Ile Pro Leu Gly Pro Ala Glu Asn Phe Leu Met Thr Leu Ala 290 295 300
- Ser Ile Gly Gly Leu Ala Ala Arg Leu Gln Leu Trp Ala Phe Lys Leu 305 310 315 320
- Asp Tyr Asp Ser Met Glu Arg Glu Ile Ala Glu Pro Leu Phe Asp Leu 325 330 335
- Lys Val Gly Met Glu Gln Leu Val Gln Asn Ala Thr Phe Arg Cys Ile 340 345 350

Leu Ala Thr Leu Leu Ala Val Gly Asn Phe Leu Asn Gly Ser Gln Ser 355 360 365

Ser Gly Phe Glu Leu Ser Tyr Leu Glu Lys Val Ser Xaa Val Lys Asp 370 375 380

Thr Val Arg Arg Gln Ser Leu Leu His His Leu Cys Ser Leu Val Leu 385 390 395 400

Gln Thr Arg Pro Glu Ser Ser Asp Leu Tyr Ser Glu Ile Pro Ala Leu 405 410 415

Thr Arg Cys Ala Lys Val Ser Thr Cys Gln Asn Gln Pro Arg Pro Asp 420 425 430

Lys Ala

<210> 71

<211> 43

<212> PRT

<213> Homo sapiens

<400> 71

Met Gly Asn Gln Lys Leu Leu Ser Leu Glu Val Leu Pro Gln Leu 1 5 10 15

Leu Leu Val Leu Ile Leu Met Pro Trp Phe Leu Leu Val Gly Lys Gly 20 25 30

His Ser Tyr His Ser Glu Glu Glu Glu Lys Ser 35

<210> 72

<211> 322

<212> PRT

<213> Homo sapiens

<400> 72

Met Lys Tyr Ile Phe Ser Leu Leu Phe Phe Leu Leu Glu Gly Gly 1 5 10 15

Lys Thr Glu Gln Val Lys His Ser Glu Thr Tyr Cys Met Phe Gln Asp 20 25 30

Lys Lys Tyr Arg Val Gly Glu Arg Trp His Pro Tyr Leu Glu Pro Tyr 35 40 45

Gly Leu Val Tyr Cys Val Asn Cys Ile Cys Ser Glu Asn Gly Asn Val 50 60

Leu Cys Ser Arg Val Arg Cys Pro Asn Val His Cys Leu Ser Pro Val 65 70 75 80

His Ile Pro His Leu Cys Cys Pro Arg Cys Pro Glu Asp Ser Leu Pro

Pro Val Asn Asn Lys Val Thr Ser Lys Ser Cys Glu Tyr Asn Gly Thr
100 105 110

Thr Tyr Gln His Gly Glu Leu Phe Val Ala Glu Gly Leu Phe Gln Asn 115 120 125

Arg Gln Pro Asn Gln Cys Thr Gln Cys Ser Cys Ser Glu Gly Asn Val 130 135 140

Tyr Cys Gly Leu Lys Thr Cys Pro Lys Leu Thr Cys Ala Phe Pro Val 145 150 155 160

Ser Val Pro Asp Ser Cys Cys Arg Val Cys Arg Gly Asp Gly Glu Leu 165 170 175

Ser Trp Glu His Ser Asp Gly Asp Ile Phe Arg Gln Pro Ala Asn Arg 180 185 190

Glu Ala Arg His Ser Tyr His His Ser His Tyr Asp Pro Pro Pro Ser 195 200 205

Arg Gln Ala Gly Gly Leu Ser Arg Phe Pro Gly Ala Arg Ser His Arg 210 215 220

Gly Ala Leu Met Asp Ser Gln Gln Ala Ser Gly Thr Ile Val Gln Ile 225 230 235 240

Val Ile Asn Asn Lys His Lys His Gly Gln Val Cys Val Ser Asn Gly 245 250 255

Lys Thr Tyr Ser His Gly Glu Ser Trp His Pro Asn Leu Arg Ala Phe 260 265 270

Gly Ile Val Glu Cys Val Leu Cys Thr Cys Asn Val Thr Lys Gln Glu 275 280 285

Cys Lys Lys Ile His Cys Pro Asn Arg Tyr Pro Cys Lys Tyr Pro Gln 290 295 300

Lys Ile Asp Gly Lys Cys Cys Lys Val Cys Pro Gly Lys Lys Lys 305 310 315 320

Lys Lys

<210> 73

<211> 306

<212> PRT

<213> Homo sapiens

<400> 73

Met Lys Ala Leu Leu Leu Val Leu Pro Trp Leu Ser Pro Ala Asn 1 5 10

Tyr Ile Asp Asn Val Gly Asn Leu His Phe Leu Tyr Ser Glu Leu Cys
20 25 30

Lys Gly Ala Ser His Tyr Gly Leu Thr Lys Asp Arg Lys Arg Arg Ser 40 45

Gln Asp Gly Cys Pro Asp Gly Cys Ala Ser Leu Thr Ala Thr Ala Pro 50 55 60

Ser Pro Glu Val Ser Ala Ala Ala Thr Ile Ser Leu Met Thr Asp Glu 65 70 75 80

Pro Gly Leu Asp Asn Pro Ala Tyr Val Ser Ser Ala Glu Asp Gly Gln
85 90 95

Pro Ala Ile Ser Pro Val Asp Ser Gly Arg Ser Asn Arg Thr Arg Ala 100 105 110

Arg Pro Phe Glu Arg Ser Thr Ile Arg Ser Arg Ser Phe Lys Lys Ile 115 120 125

Asn Arg Ala Leu Ser Val Leu Arg Arg Thr Lys Ser Gly Ser Ala Val 130 135 140

Ala Asn His Ala Asp Gln Gly Arg Glu Asn Ser Glu Asn Thr Thr Ala 145 150 155 160

Pro Glu Val Phe Pro Arg Leu Tyr His Leu Ile Pro Asp Gly Glu Ile 165 170 175

Thr Ser Ile Lys Ile Asn Arg Val Asp Pro Ser Glu Ser Leu Ser Ile 180 185 190

Arg Leu Val Gly Gly Ser Glu Thr Pro Leu Val His Ile Ile Ile Gln
195 200 205

His Ile Tyr Arg Asp Gly Val Ile Ala Arg Asp Gly Arg Leu Leu Pro 210 215 220

Gly Asp Ile Ile Leu Lys Val Asn Gly Met Asp Ile Ser Asn Val Pro 225 230 235 240

His Asn Tyr Ala Val Arg Leu Leu Arg Gln Pro Cys Gln Val Leu Trp 245 250 255

Leu Thr Val Met Arg Glu Gln Lys Phe Arg Ser Arg Asn Asn Gly Gln 260 265 270

Ala Pro Asp Ala Tyr Arg Pro Arg Asp Asp Ser Phe His Val Ile Leu 275 280 285

Asn Lys Ser Arg Pro Arg Gly Ala Ala Trp Asn Lys Thr Gly Ala Gln 290 295 300

Gly Gly 305

<210> 74 <211> 114 <212> PRT

<213> Homo sapiens

<400> 74

Met Val Thr Arg Ala Gly Ala Gly Thr Ala Val Ala Gly Ala Val Val 1 5 10 15

Val Ala Leu Leu Ser Ala Ala Leu Ala Leu Tyr Gly Pro Pro Leu Asp 20 25 30

Ala Val Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His Ser Ile Lys 45

Asp Met Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile Pro Pro Leu 50 60

Ser Ser Thr Lys His Lys Gly Gln Asp Gly Arg Ile Gly Val Val Gly 65 70 75 80

Gly Cys Gln Glu Tyr Thr Gly Ala Pro Tyr Phe Ala Glu Ser Gln Leu 85 90 95

Ser Lys Trp Ala Gln Thr Cys Pro Thr Cys Ser Val Pro Val Arg Pro 100 105 110

His Leu

<210> 75

<211> 114

<212> PRT

<213> Homo sapiens

<400> 75

Met Val Thr Arg Ala Gly Ala Gly Thr Ala Val Ala Gly Ala Val Val

1 5 10 15

Val Ala Leu Leu Ser Ala Ala Leu Ala Leu Tyr Gly Pro Pro Leu Asp 20 25 30

Ala Val Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His Ser Ile Lys 35 40 45

Asp Met Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile Pro Pro Leu 50 55 60

Ser Ser Thr Lys His Lys Gly Gln Asp Gly Arg Ile Gly Val Val Gly 65 70 75 80

Gly Cys Gln Glu Tyr Thr Gly Ala Pro Tyr Phe Ala Glu Ser Gln Leu 85 90 95

Ser Lys Trp Ala Gln Thr Cys Pro Thr Cys Ser Val Pro Val Arg Pro
100 105 110

His Leu

```
<210> 76
<211> 85
<212> PRT
```

<213> Homo sapiens

<400> 76

Met Tyr Ala Cys Val Cys Arg Val Leu Gln Pro Gly Cys Gly Arg Val 1 5 10 15

Leu Val Cys Ala Arg Val Pro Ala Trp Leu Trp Val Cys Val Cys Val 20 25 30

Cys Val Cys Val Cys Val Leu Ala Ser Gly Ala Val Arg Pro 35 40 45

Leu Arg Val Gly Ala Leu Phe Ser Ala His Trp Lys Pro Ser Pro Phe

Ser Gln Met Pro Gly Arg Gly Gly Ala Ala Val Gly Thr His Leu Val 65 70 75 80

Leu Leu Ser Asp Leu 85

<210> 77 <211> 154 <212> PRT <213> Homo sapiens

<400> 77

Met Ala Thr Val Arg Ala Ser Leu Arg Gly Ala Leu Leu Leu Leu 15 10 15

Ala Val Ala Gly Val Ala Glu Val Ala Gly Gly Leu Ala Pro Gly Ser 20 25 30

Ala Gly Ala Leu Cys Cys Asn His Ser Lys Asp Asn Gln Met Cys Arg 35 40 45

Asp Val Cys Glu Gln Ile Phe Ser Ser Lys Ser Glu Ser Arg Leu Lys 50 55 60

His Leu Leu Gln Arg Ala Pro Asp Tyr Cys Pro Glu Thr Met Val Glu
65 70 75 80

Ile Trp Asn Cys Met Asn Ser Ser Leu Pro Gly Val Phe Lys Lys Ser 85 90 95

Asp Gly Trp Val Gly Leu Gly Cys Cys Glu Leu Ala Ile Ala Leu Glu 100 105 110

Cys Arg Gln Ala Cys Lys Gln Ala Ser Ser Lys Asn Asp Ile Ser Lys 115 120 125

Val Cys Arg Lys Glu Tyr Glu Pro Val Leu Arg Tyr Phe Ser Val Leu

130 135 140

Pro Ser Leu Val Trp Ile Ser Ala Leu Pro 145 150

<210> 78

<211> 161

<212> PRT

<213> Homo sapiens

<400> 78

Met Ala Thr Val Arg Ala Ser Leu Arg Gly Ala Leu Leu Leu Leu 1 10 15

Ala Val Ala Gly Val Ala Glu Val Ala Gly Gly Leu Ala Pro Gly Ser 20 25 30

Ala Gly Ala Leu Cys Cys Asn His Ser Lys Asp Asn Gln Met Cys Arg

Asp Val Cys Glu Gln Ile Phe Ser Ser Lys Ser Glu Ser Arg Leu Lys 50 55 60

His Leu Leu Gln Arg Ala Pro Asp Tyr Cys Pro Glu Thr Met Val Glu 65 70 75 80

Ile Trp Asn Cys Met Asn Ser Ser Leu Pro Gly Val Phe Lys Lys Ser 85 90 95

Asp Gly Trp Val Gly Leu Gly Cys Cys Glu Leu Ala Ile Ala Leu Glu

Cys Arg Gln Ala Cys Ser Arg His Leu Gln Arg Met Ile Phe Pro Lys 115 120 125

Phe Ala Glu Lys Asn Met Ser Leu Ser Ser Val Ile Leu Val Cys Phe 130 135 140

Leu Leu Ser Gly Phe Leu His Cys Pro Arg Lys Ser Ala Ser Met 145 150 155 160

Cys

<210> 79

<211> 51

<212> PRT

<213> Homo sapiens

<400> 79

Ala Val Val Pro Thr Trp Cys Ser Thr Val Leu Leu Thr Phe Val Pro

Thr Ala Arg Leu Val Ala Gly Leu Glu Asp Val Gln Val Tyr Asp Gly
20 25 30

```
Glu Asp Ala Val Phe Ser Leu Asp Leu Ser Thr Ile Ile Gln Gly Thr
                             40
Trp Phe Pro
     50
<210> 80
<211> 40
<212> PRT
<213> Homo sapiens
<400> 80
Met Leu Phe Pro Leu Leu Ala Trp Pro His Leu Leu Ser Leu Trp Val
Cys Leu Thr Ala Thr Ser Pro Ser Lys Pro Ser Ala Pro His Ser His
                                 25
Gln Met Asp Leu Cys Leu Leu His
<210> 81
<211> 36
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 81
Arg Pro Arg Thr Arg Ala Pro Arg Gly Ala Arg Ser Ala Cys Thr Arg
Gly Xaa Arg Arg Pro Val Pro Ser Leu Lys Val Leu Ser Pro Phe
                                 25
Ala Val Val Gln
         35
<210> 82
<211> 489
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 82
Arg Pro Arg Thr Arg Ala Pro Arg Gly Ala Arg Ser Ala Cys Thr Arg
                                     10
```

- Gly Xaa Arg Arg Arg Pro Val Pro Ser Leu Lys Val Leu Ser Pro Phe 20 25 30
- Ala Val Val Gln Met Arg Lys Lys Trp Lys Met Gly Gly Met Lys Tyr 35 40 45
- Ile Phe Ser Leu Leu Phe Phe Leu Leu Glu Gly Gly Lys Thr Glu 50 55 60
- Gln Val Lys His Ser Glu Thr Tyr Cys Met Phe Gln Asp Lys Lys Tyr
  65 70 75 80
- Arg Val Gly Glu Arg Trp His Pro Tyr Leu Glu Pro Tyr Gly Leu Val 85 90 95
- Tyr Cys Val Asn Cys Ile Cys Ser Glu Asn Gly Asn Val Leu Cys Ser
- Arg Val Arg Cys Pro Asn Val His Cys Leu Ser Pro Val His Ile Pro 115 120 125
- His Leu Cys Cys Pro Arg Cys Pro Glu Asp Ser Leu Pro Pro Val Asn 130 135 140
- Asn Lys Val Thr Ser Lys Ser Cys Glu Tyr Asn Gly Thr Thr Tyr Gln 145 150 155 160
- His Gly Glu Leu Phe Val Ala Glu Gly Leu Phe Gln Asn Arg Gln Pro 165 170 175
- Asn Gln Cys Thr Gln Cys Ser Cys Ser Glu Gly Asn Val Tyr Cys Gly 180 185 190
- Leu Lys Thr Cys Pro Lys Leu Thr Cys Ala Phe Pro Val Ser Val Pro
- Asp Ser Cys Cys Arg Val Cys Arg Gly Asp Gly Glu Leu Ser Trp Glu 210 215 220
- His Ser Asp Gly Asp Ile Phe Arg Gln Pro Ala Asn Arg Glu Ala Arg 225 230 235 240
- His Ser Tyr His Arg Ser His Tyr Asp Pro Pro Pro Ser Arg Gln Ala 245 250 255
- Gly Gly Leu Ser Arg Phe Pro Gly Ala Arg Ser His Arg Gly Ala Leu 260 265 270
- Met Asp Ser Gln Gln Ala Ser Gly Thr Ile Val Gln Ile Val Ile Asn 275 280 285
- Asn Lys His Lys His Gly Gln Val Cys Val Ser Asn Gly Lys Thr Tyr
- Ser His Gly Glu Ser Trp His Pro Asn Leu Arg Ala Phe Gly Ile Val
- Glu Cys Val Leu Cys Thr Cys Asn Val Thr Lys Gln Glu Cys Lys Lys

Val Arg Ala Pro Gly Leu Leu Asp Ser Leu Tyr Gly Thr Val Arg Arg 35 40 45

Phe Leu Ser Val Val Gln Leu Asn Pro Phe Pro Ser Glu Leu Val Lys
50 55 60

Ala Leu Leu Asn Glu Leu Ala Ser Val Lys Val Asn Glu Val Val Arg
65 70 75 80

Tyr Glu Ala

<210> 85

<211> 257

<212> PRT

<213> Homo sapiens

<400> 85

Val Cys Ala Phe Val Thr Asn Gln Arg Thr His Glu Gln Met Gly Pro 1 5 10 15

Ser Ile Glu Ala Met Pro Glu Thr Leu Leu Ser Leu Trp Gly Leu Val 20 25 30

Ser Asp Val Pro Gln Glu Leu Gln Ala Val Ala Gln Gln Phe Ser Leu 35 40 45

Pro Gln Glu Gln Val Ser Glu Glu Leu Asp Gly Val Gly Val Ser Ile 50 55 60

Gly Ser Ala Ile His Thr Gln Leu Arg Ser Ser Val Tyr Pro Leu Leu 65 70 75 80

Ala Ala Val Gly Ser Leu Gly Gln Val Leu Gln Val Ser Val His His 90 95

Leu Gln Thr Leu Asn Ala Thr Val Val Glu Leu Gln Ala Gly Gln Gln
100 105 110

Asp Leu Glu Pro Ala Ile Arg Glu His Arg Asp Arg Leu Leu Glu Leu 115 120 125

Leu Gln Glu Ala Arg Cys Gln Gly Asp Cys Ala Gly Ala Leu Ser Trp 130 135 140

Ala Arg Thr Leu Glu Leu Gly Ala Asp Phe Ser Gln Val Pro Ser Val 145 150 155 160

Asp His Val Leu His Gln Leu Lys Gly Val Pro Glu Ala Asn Phe Ser 165 170 175

Ser Met Val Gln Glu Glu Asn Ser Thr Phe Asn Ala Leu Pro Ala Leu 180 185 190

Ala Ala Met Gln Thr Ser Ser Val Val Gln Glu Leu Lys Lys Ala Val
195 200 205

Ala Gln Gln Pro Glu Gly Val Arg Thr Leu Ala Glu Gly Phe Pro Gly 210 215 220

Leu Glu Ala Ala Ser Arg Trp Ala Gln Ala Leu Gln Glu Val Glu Glu 225 230 235 240

Ser Ser Arg Pro Tyr Leu Gln Glu Val Gln Arg Tyr Glu Thr Tyr Arg 245 250 255

Trp

<210> 86

<211> 287

<212> PRT

<213> Homo sapiens

<400> 86

Val Gly Gly Asn Val Gln Thr Leu Val Cys Arg Ser Trp Glu Asn Gly
1 5 10 15

Glu Leu Phe Glu Phe Ala Asp Thr Pro Gly Asn Leu Pro Pro Ser Met 20 25 30

Asn Leu Ser Gln Leu Leu Gly Leu Arg Lys Asn Ile Ser Ile His Gln 35 40 45

Ala Tyr Gln Gln Cys Lys Glu Gly Ala Ala Leu Trp Thr Val Leu Gln 50 55 60

Leu Asn Asp Ser Tyr Asp Leu Glu Glu His Leu Asp Ile Asn Gln Tyr 65 70 75 80

Thr Asn Lys Leu Arg Gln Glu Leu Gln Ser Leu Lys Val Asp Thr Gln 85 90 95

Ser Leu Asp Leu Leu Ser Ser Ala Ala Arg Arg Asp Leu Glu Ala Leu 100 105 110

Gln Ser Ser Gly Leu Gln Arg Ile His Tyr Pro Asp Phe Leu Val Gln 115 120 125

Ile Gln Arg Pro Val Val Lys Thr Ser Met Glu Gln Leu Ala Gln Glu
130
135
140

Leu Gln Glu Glu Ala Gln Gly Leu Arg Asn Leu His Gln Glu Lys Val 165 170 175

Val Pro Gln Gln Ser Leu Val Ala Lys Leu Asn Leu Ser Val Arg Ala 180 185 190

Leu Glu Ser Ser Ala Pro Asn Leu Gln Leu Glu Thr Ser Asp Val Leu 195 200 205

Ala Asn Val Thr Tyr Leu Lys Gly Glu Leu Pro Ala Trp Ala Ala Arg 210 215 220

Ile Leu Arg Asn Val Ser Glu Cys Phe Leu Ala Arg Glu Met Gly Tyr 225 230 235 240

Phe Ser Gln Tyr Val Ala Trp Val Arg Glu Glu Val Thr Gln Arg Ile 245 250 255

Ala Thr Cys Gln Pro Leu Ser Gly Ala Leu Asp Asn Ser Arg Val Ile 260 265 270

Leu Cys Asp Met Met Ala Asp Pro Trp Asn Ala Phe Trp Phe Cys 275 280 285

<210> 87

<211> 40

<212> PRT

<213> Homo sapiens

<400> 87

Lys Gln Leu His Phe Lys Met Gln Met Thr Val Gly Glu Lys Glu Tyr 1 5 10 15

Pro Val Cys Cys Gln Leu Ile Leu Phe Ser Leu Cys Cys Phe Ile Trp 20 25 30

Glu Glu Leu Phe Leu Tyr Ile Lys 35 40

<210> 88

<211> 70

<212> PRT

<213> Homo sapiens

<400> 88

Ile Ser Lys Lys Asp Pro Gly Glu Ser Leu Gly Met Thr Val Ala Gly

1 5 10 15

Gly Ala Ser His Arg Glu Trp Asp Leu Pro Ile Tyr Val Ile Ser Val 20 25 30

Glu Pro Gly Gly Val Ile Ser Arg Asp Gly Arg Ile Lys Thr Gly Asp

Ile Leu Leu Asn Val Asp Gly Val Arg Thr Asp Arg Gly Gln Pro Gly 50 55 60

Val Arg Gln Trp His Tyr 65 70

<210> 89

<211> 38

<212> PRT

<213> Homo sapiens

Gly Ala Ser His Arg Glu Trp Asp Leu Pro Ile Tyr Val Ile Ser Val 20 25 30

Glu Pro Gly Gly Val Ile 35

<210> 90

<211> 32

<212> PRT

<213> Homo sapiens

<400> 90

Ser Arg Asp Gly Arg Ile Lys Thr Gly Asp Ile Leu Leu Asn Val Asp

1 5 10 15

Gly Val Arg Thr Asp Arg Gly Gln Pro Gly Val Arg Gln Trp His Tyr
20 25 30

<210> 91

<211> 122

<212> PRT

<213> Homo sapiens

<40.0> 91

Phe Ser Thr Lys Val Gly Pro Glu Glu Gln Leu Gly Ile Lys Leu Val 1 5 10 15

Arg Lys Val Asp Glu Pro Gly Val Phe Ile Phe Asn Val Leu Asp Gly 20 25 30

Gly Val Ala Tyr Arg His Gly Gln Leu Glu Glu Asn Asp Arg Val Leu 35 40 45

Ala Ile Asn Gly His Asp Leu Arg Tyr Gly Ser Pro Glu Ser Ala Ala 50 55 60

His Leu Ile Gln Ala Ser Glu Arg Arg Val His Leu Val Val Ser Arg
65 70 75 80

Gln Val Arg Gln Arg Ser Pro Asp Ile Phe Gln Glu Ala Ala Leu Glu 85 90 95

Gln Gln Trp Gln Leu Val Pro Arg Ala Arg Gly Glu Glu Gln His Ser 100 105 110

Gln Ala Pro Pro Ser Tyr Asn Tyr Leu Ser 115 120

```
<210> 92
<211> 41
<212> PRT
<213> Homo sapiens
<400> 92
Phe Ser Thr Lys Val Gly Pro Glu Glu Gln Leu Gly Ile Lys Leu Val
Arg Lys Val Asp Glu Pro Gly Val Phe Ile Phe Asn Val Leu Asp Gly
Gly Val Ala Tyr Arg His Gly Gln Leu
<210> 93
<211> 41
<212> PRT
<213> Homo sapiens
<400> 93
Glu Glu Asn Asp Arg Val Leu Ala Ile Asn Gly His Asp Leu Arg Tyr
Gly Ser Pro Glu Ser Ala Ala His Leu Ile Gln Ala Ser Glu Arg Arg
             20
Val His Leu Val Val Ser Arg Gln Val
         35
<210> 94
<211> 40
<212> PRT
<213> Homo sapiens
<400> 94
Arg Gln Arg Ser Pro Asp Ile Phe Gln Glu Ala Ala Leu Glu Gln Gln
Trp Gln Leu Val Pro Arg Ala Arg Gly Glu Glu Gln His Ser Gln Ala
                                  25
             ,20
Pro Pro Ser Tyr Asn Tyr Leu Ser
         35
<210> 95
<211> 162
<212> PRT
<213> Homo sapiens
Gln Arg Ser Ala Arg Ser Glu Ala Val Ala Leu Leu Lys Arg Thr Ser
                                     10
```

Ser Ser Ile Val Leu Lys Ala Leu Glu Val Lys Glu Tyr Glu Pro Gln 20 25 30

Glu Asp Cys Ser Ser Pro Ala Ala Leu Asp Ser Asn His Asn Met Ala 35 40 45

Pro Pro Ser Asp Trp Ser Pro Ser Trp Val Met Trp Leu Glu Leu Pro
50 55 60

Arg Cys Leu Tyr Asn Cys Lys Asp Ile Val Leu Arg Arg Asn Thr Ala
65 70 75 80

Gly Ser Leu Gly Phe Cys Ile Val Gly Gly Tyr Glu Glu Tyr Asn Gly 85 90 95

Asn Lys Pro Phe Phe Ile Lys Ser Ile Val Glu Gly Thr Pro Ala Tyr 100 105 110

Asn Asp Gly Arg Ile Arg Cys Gly Asp Ile Leu Leu Ala Val Asn Gly 115 120 125

Arg Ser Thr Ser Gly Met Ile His Ala Cys Leu Ala Arg Leu Leu Lys 130 135 140

Glu Leu Lys Gly Arg Ile Thr Leu Thr Ile Val Ser Trp Pro Gly Thr 145 150 155 160

Phe Leu

<210> 96

<211> 36

<212> PRT

<213> Homo sapiens

<400> 96

Gln Arg Ser Ala Arg Ser Glu Ala Val Ala Leu Leu Lys Arg Thr Ser

Ser Ser Ile Val Leu Lys Ala Leu Glu Val Lys Glu Tyr Glu Pro Gln 20 25 30

Glu Asp Cys Ser 35

<210> 97

<211> 41

<212> PRT

<213> Homo sapiens

<400> 97

Ser Pro Ala Ala Leu Asp Ser Asn His Asn Met Ala Pro Pro Ser Asp 1 5 10 15

Trp Ser Pro Ser Trp Val Met Trp Leu Glu Leu Pro Arg Cys Leu Tyr
20 25 30

Asn Cys Lys Asp Ile Val Leu Arg Arg 35 40

<210> 98

<211> 43

<212> PRT

<213> Homo sapiens

<400> 98

Asn Thr Ala Gly Ser Leu Gly Phe Cys Ile Val Gly Gly Tyr Glu Glu
1 5 10 15

Tyr Asn Gly Asn Lys Pro Phe Phe Ile Lys Ser Ile Val Glu Gly Thr 20 25 30

Pro Ala Tyr Asn Asp Gly Arg Ile Arg Cys Gly

<210> 99

<211> 42

<212> PRT

<213> Homo sapiens

<400> 99

Asp Ile Leu Leu Ala Val Asn Gly Arg Ser Thr Ser Gly Met Ile His 1 5 10 15

Ala Cys Leu Ala Arg Leu Leu Lys Glu Leu Lys Gly Arg Ile Thr Leu 20 25 30

Thr Ile Val Ser Trp Pro Gly Thr Phe Leu

<210> 100

<211> 209

<212> PRT

<213> Homo sapiens

<400> 100

Met Thr Val Ala Gly Gly Ala Ser His Arg Glu Trp Asp Leu Pro Ile

Tyr Val Ile Ser Val Glu Pro Gly Gly Val Ile Ser Arg Asp Gly Arg 20 25 30

Ile Lys Thr Gly Asp Ile Leu Leu Asn Val Asp Gly Val Glu Leu Thr 35 40 45

Glu Val Ser Arg Ser Glu Ala Val Ala Leu Leu Lys Arg Thr Ser Ser 50 60

Ser Ile Val Leu Lys Ala Leu Glu Val Lys Glu Tyr Glu Pro Gln Glu 65 70 75 80

Asp Cys Ser Ser Pro Ala Ala Leu Asp Ser Asn His Asn Met Ala Pro 85 90 95

Pro Ser Asp Trp Ser Pro Ser Trp Val Met Trp Leu Glu Leu Pro Arg 100 105 110

Cys Leu Tyr Asn Cys Lys Asp Ile Val Leu Arg Arg Asn Thr Ala Gly 115 120 125

Ser Leu Gly Phe Cys Ile Val Gly Gly Tyr Glu Glu Tyr Asn Gly Asn 130 135 140

Lys Pro Phe Phe Ile Lys Ser Ile Val Glu Gly Thr Pro Ala Tyr Asn 145 150 155 160

Asp Gly Arg Ile Arg Cys Gly Asp Ile Leu Leu Ala Val Asn Gly Arg 165 170 175

Ser Thr Ser Gly Met Ile His Ala Cys Leu Ala Arg Leu Leu Lys Glu 180 185 190

Leu Lys Gly Arg Ile Thr Leu Thr Ile Val Ser Trp Pro Gly Thr Phe 195 200 205

Leu

<210> 101

<211> 242

<212> PRT

<213> Homo sapiens

<400> 101

Met Ala Thr Ser Thr Ile Thr Ser Arg Arg Leu Met Ser Gly Phe Leu
1 5 10 15

Phe Leu Pro Val Ser Ser Phe Ser Met Ser Phe Phe Phe Phe Ser Thr 20 25 30

Cys Ser Val Thr Leu Ile Thr Ser Phe Cys Ile Phe Pro Val Ser Val 35 40 45

Ser Phe Phe Ile Ala Val Glu Asn Thr Trp Cys Arg Thr Val Ile Thr 50 55 60

Leu Pro Leu Ser Leu Ser Gly Ala Phe Ser Phe Ser Val Pro Ile Thr 65 70 75 80

Val Ser Leu Ser Val Ser Val Ser Leu Ser Ile Ser Val Phe Leu Ser 85 90 95

Ser Gly Ile Ile Val Pro Leu Leu Ala Gly Val His Lys Thr Arg Pro

Arg Arg Ser Arg Thr Arg Lys Met Gly Lys Gly Asn Ile Ala Ile Trp 115 120 125

Lys Cys Thr Cys Arg Thr Thr Ile Ile Thr Arg Gly Met Ser Thr Phe 130 135 140

Tyr Cys Trp Tyr Lys Arg Trp Arg Trp Ser Ala Trp Trp Arg Arg Lys 145 150 155 160

Thr Arg Trp Trp Asn Gln Arg Trp Ser Ser Ala Asp Ser Arg Arg Arg 165 170 175

Trp Lys Lys Trp Arg Arg Trp Lys Val Ser Gly Arg Ser Ser Trp Arg 180 185 190

Glu Lys Arg Arg Trp Phe Ala Lys Ile Val Val Tyr Phe Ser Ser Arg 195 200 205

Ser Phe Arg Lys Asp Leu Tyr Val Ala Val Leu Ile Cys Pro Ser Pro 210 215 220

Ala Phe Tyr Ser Ala Asp Ser Tyr Ser Leu Thr Asp Asn Ile Asn Cys 225 230 235 240

Pro Arg

<210> 102

<211> 520

<212> PRT

<213> Homo sapiens

<400> 102

Met Ser Ala Gly Glu Val Glu Arg Leu Val Ser Glu Leu Ser Gly Gly
1 5 10 15

Thr Gly Gly Asp Glu Glu Glu Glu Trp Leu Tyr Gly Asp Glu Asn Glu 20 25 30

Val Glu Arg Pro Glu Glu Glu Asn Ala Ser Ala Asn Pro Pro Ser Gly 35 40 45

Ile Glu Asp Glu Thr Ala Glu Asn Gly Leu Pro Lys Pro Lys Val Thr 50 55 60

Glu Thr Glu Asp Asp Ser Asp Ser Asp Ser Asp Asp Asp Glu Asp Asp 65 70 75 80

Val His Val Thr Ile Gly Asp Ile Lys Thr Gly Ala Pro Gln Tyr Gly 85 90 95

Ser Tyr Gly Thr Ala Pro Val Asn Leu Asn Ile Lys Thr Gly Gly Arg

Val Tyr Gly Thr Thr Gly Thr Lys Val Lys Gly Val Asp Leu Asp Ala 115 120 125

Pro Gly Ser Ile Asn Gly Val Pro Leu Leu Glu Val Asp Leu Asp Ser 130 135 140

- Phe Glu Asp Lys Pro Trp Arg Lys Pro Gly Ala Asp Leu Ser Asp Tyr 145 150 155 160
- Phe Asn Tyr Gly Phe Asn Glu Asp Thr Trp Lys Ala Tyr Cys Glu Lys 165 170 175
- Gln Lys Arg Ile Arg Met Gly Leu Glu Val Ile Pro Val Thr Ser Thr 180 185 190
- Thr Asn Lys Ile Thr Val Gln Gln Gly Arg Thr Gly Asn Ser Glu Lys 195 200 205
- Glu Thr Ala Leu Pro Ser Thr Lys Ala Glu Phe Thr Ser Pro Pro Ser 210 215 220
- Leu Phe Lys Thr Gly Leu Pro Pro Ser Arg Arg Leu Pro Gly Ala Ile 225 230 235 240
- Asp Val Ile Gly Gln Thr Ile Thr Ile Ser Arg Val Glu Gly Arg Arg 245 250 255
- Arg Ala Asn Glu Asn Ser Asn Ile Gln Val Leu Ser Glu Arg Ser Ala 260 265 270
- Thr Glu Val Asp Asn Asn Phe Ser Lys Pro Pro Pro Phe Phe Pro Pro 275 280 285
- Gly Ala Pro Pro Thr His Leu Pro Pro Pro Pro Phe Leu Pro Pro Pro 290 295 300
- Pro Thr Val Ser Thr Ala Pro Pro Leu Ile Pro Pro Pro Gly Phe Pro 305 310 315 320
- Pro Pro Pro Gly Ala Pro Pro Pro Ser Leu Ile Pro Thr Ile Glu Ser 325 330 335
- Gly His Ser Ser Gly Tyr Asp Ser Arg Ser Ala Arg Ala Phe Pro Tyr 340 345 350
- Gly Asn Val Ala Phe Pro His Leu Pro Gly Ser Ala Pro Ser Trp Pro 355 360 365
- Ser Leu Val Asp Thr Ser Lys Gln Trp Asp Tyr Tyr Ala Arg Arg Glu 370 375 380
- Lys Asp Arg Asp Arg Glu Arg Asp Arg Asp Arg Glu Arg Asp Arg 385 390 395 400
- Arg Asp Arg Glu Arg Glu Arg Thr Arg Glu Arg Glu Arg Glu Arg Asp 405 410 415
- His Ser Pro Thr Pro Ser Val Phe Asn Ser Asp Glu Glu Arg Tyr Arg
- Tyr Arg Glu Tyr Ala Glu Arg Gly Tyr Glu Arg His Arg Ala Ser Arg 435 440 445
- Glu Lys Glu Glu Arg His Arg Glu Arg Arg His Arg Glu Lys Glu Glu

	450					455					460				
Thr 465	Arg	His	Lys	Ser	Ser 470	Arg	Ser	Asn	Ser	Arg 475	Arg	Arg	His	Glu	Se1
Glu	Glu	Gly	Asp	Ser 485	His	Arg	Arg	His	Lys 490	His	Lys	Lys	Ser	Lys 495	Arg
Ser	Lys	Glu	Gly 500	Lys	Glu	Ala	Gly	Ser 505	Glu	Pro	Ala	Pro	Glu 510	Gln	Glu
Ser	Thr	Glu 515	Ala	Thr	Pro	Ala	Glu 520					,			
<210> 103 <211> 205 <212> PRT <213> Homo sapiens															
	)> 10 Ile		Val	Leu 5	His	Val	His	Phe	His 10	Met	Ala	Met	Leu	Pro 15	Phe
Pro	Ile	Phe	Leu 20	Val	Leu	Leu	Leu	Arg 25	Gly	Leu	Val	Leu	Trp 30	Thr	Pro
Ala	Ser	Ser 35	Gly	Thr	Ile	Met	Pro 40	Glu	Glu	Arg	Lys	Thr 45	Glu	Ile	Glu
Arg	Glu 50	Thr	Glu	Thr	Glu	Ser 55	Glu	Thr	Val	Ile	Gly 60	Thr	Glu	ГÀа	Glt
Asn 65	Ala	Pro	Glu	Arg	Glu 70	Arg	Gly	Ser	Val	Ile 75	Thr	Val	Leu	His	Glr 80
Val	Phe	Ser	Thr	Ala 85	Met	Lys	Asn	Asp	Thr 90	Asp	Thr	Gly	Asn	Met 95	Glı
Lys	Glu	Val	Met 100	Ser	Val	Thr	Glu	Gln 105	Val	Glu	Lys	Lys	Lys 110	Asn	Ası
Ile	Glu	Lys 115	Asp	Asp	Thr	Gly	Arg 120	Lys	Arg	Lys	Pro	Asp 125	Ile	Ser	Let
Leu	Glu 130	Val	Ile	Val	Asp	Val 135	Ala	Met	Lys	Val	Lys 140	Lys	Glu	Ile	Va.
Thr 145	Gly	Asp	Thr	Asn	Thr 150	Lys	Asn	Leu	Lys	Glu 155	Ala	Lys	Lys	Glu	Ly:
Lys	Arg	Ala	Val	Ser 165	Leu	Pro	Leu	Asn	Arg 170	Arg	Ala	Pro	Lys	Leu 175	His
Leu	Gln	Asn	Arg 180	His	Gly	Phe	Gly	Leu 185	Leu	Cys	Ile	Leu	Val 190	Pro	Gl

Val Asp Thr Ile Asn Leu Val Ile Phe Leu Asp Asn Ala

205

<210> 104

<211> 26

<212> PRT

<213> Homo sapiens

<400> 104

His Ala Ser Ala His Gly Pro Arg Pro Ser Val Arg Thr Gly Leu Pro

200

Ser Val Gly Arg Gln Ala Ala Gly Ala Ala

<210> 105

<211> 494

<212> PRT

<213> Homo sapiens

<400> 105

His Ala Ser Ala His Gly Pro Arg Pro Ser Val Arg Thr Gly Leu Pro 5

Ser Val Gly Arg Gln Ala Ala Gly Ala Ala Met Gly Arg Gly Trp Gly

Phe Leu Phe Gly Leu Leu Gly Ala Val Trp Leu Leu Ser Ser Gly His

Gly Glu Glu Gln Pro Pro Glu Thr Ala Ala Gln Arg Cys Phe Cys Gln

Val Ser Gly Tyr Leu Asp Asp Cys Thr Cys Asp Val Glu Thr Ile Asp

Arg Phe Asn Asn Tyr Arg Leu Phe Pro Arg Leu Gln Lys Leu Leu Glu

Ser Asp Tyr Phe Arg Tyr Tyr Lys Val Asn Leu Lys Arg Pro Cys Pro

Phe Trp Asn Asp Ile Ser Gln Cys Gly Arg Arg Asp Cys Ala Val Lys

Pro Cys Gln Ser Asp Glu Val Pro Asp Gly Ile Lys Ser Ala Ser Tyr

Lys Tyr Ser Glu Glu Ala Asn Asn Leu Ile Glu Glu Cys Glu Gln Ala

Glu Arg Leu Gly Ala Val Asp Glu Ser Leu Ser Glu Glu Thr Gln Lys 170

Ala Val Leu Gln Trp Thr Lys His Asp Asp Ser Ser Asp Asn Phe Cys 185

- Glu Ala Asp Asp Ile Gln Ser Pro Glu Ala Glu Tyr Val Asp Leu Leu 195 200 205
- Leu Asn Pro Glu Arg Tyr Thr Gly Tyr Lys Gly Pro Asp Ala Trp Lys 210 215 220
- Ile Trp Asn Val Ile Tyr Glu Glu Asn Cys Phe Lys Pro Gln Thr Ile
  225 230 235 240
- Lys Arg Pro Leu Asn Pro Leu Ala Ser Gly Gln Gly Thr Ser Glu Glu 245 250 255
- Asn Thr Phe Tyr Ser Trp Leu Glu Gly Leu Cys Val Glu Lys Arg Ala 260 265 270
- Phe Tyr Arg Leu Ile Ser Gly Leu His Ala Ser Ile Asn Val His Leu 275 280 285
- Ser Ala Arg Tyr Leu Leu Gln Glu Thr Trp Leu Glu Lys Lys Trp Gly 290 295 300
- His Asn Ile Thr Glu Phe Gln Gln Arg Phe Asp Gly Ile Leu Thr Glu 305 310 315 320
- Gly Glu Gly Pro Arg Arg Leu Lys Asn Leu Tyr Phe Leu Tyr Leu Ile 325 330 335
- Glu Leu Arg Ala Leu Ser Lys Val Leu Pro Phe Phe Glu Arg Pro Asp 340 345 350
- Phe Gln Leu Phe Thr Gly Asn Lys Ile Gln Asp Glu Glu Asn Lys Met 355 360 365
- Leu Leu Glu Ile Leu His Glu Ile Lys Ser Phe Pro Leu His Phe 370 375 380
- Asp Glu Asn Ser Phe Phe Ala Gly Asp Lys Lys Glu Ala His Lys Leu 385 390 395 400
- Lys Glu Asp Phe Arg Leu His Phe Arg Asn Ile Ser Arg Ile Met Asp 405 410 415
- Cys Val Gly Cys Phe Lys Cys Arg Leu Trp Gly Lys Leu Gln Thr Gln 420 425 430
- Gly Leu Gly Thr Ala Leu Lys Ile Leu Phe Ser Glu Lys Leu Ile Ala 435 440 445
- Asn Met Pro Glu Ser Gly Pro Ser Tyr Glu Phe His Leu Thr Arg Gln
  450 455 460
- Glu Ile Val Ser Leu Phe Asn Ala Phe Gly Arg Ile Ser Thr Ser Val 465 470 475 480
- Lys Glu Leu Glu Asn Phe Arg Asn Leu Leu Gln Asn Ile His
  485 490

```
<210> 106
<211> 24
<212> PRT
<213> Homo sapiens
<400> 106
Cys Cys Arg Asn Ser Ala Arg Gly Gln Ser Gly Leu Ala Asp Glu Val
Arg Ser Ile Pro Phe Gly Pro Gly
<210> 107
<211> 289
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (144)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (246)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (252)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 107
Ser Thr Phe Asp Lys Gly Tyr Gly Lys Tyr Phe Ala Ala Gly Glu Lys
Tyr His Thr Ser Ser Val Phe His Lys Ala Gln Arg Ala Arg Trp Lys
Asn Arg Arg Ser Trp Arg Leu Ser Gly Val His Trp Ser Pro Ile Phe
Cys Arg Ile Ser Ala Leu Lys Val Gly Ala Asp Leu Ser His Val Phe
Cys Ala Ser Ala Ala Ala Pro Val Ile Lys Ala Tyr Ser Pro Glu Leu
                      70
Ile Val His Pro Val Leu Asp Ser Pro Asn Ala Val His Glu Val Glu
Lys Trp Leu Pro Arg Leu His Ala Leu Val Val Gly Pro Gly Leu Gly
Arg Asp Asp Ala Leu Leu Arg Asn Val Gln Gly Ile Leu Glu Val Ser
        115
```

Lys Ala Arg Asp Ile Pro Val Val Ile Asp Ala Asp Gly Leu Trp Xaa 130 135 140

Val Ala Gln Gln Pro Ala Leu Ile His Gly Tyr Arg Lys Ala Val Leu 145 150 155 160

Thr Pro Asn His Val Glu Phe Ser Arg Leu Tyr Asp Ala Val Leu Arg 165 170 175

Gly Pro Met Asp Ser Asp Ser His Gly Ser Val Leu Arg Leu Ser 180 185 190

Gln Ala Leu Gly Asn Val Thr Val Val Gln Lys Gly Glu Arg Asp Ile 195 200 205

Leu Ser Asn Gly Gln Gln Val Leu Val Cys Ser Gln Glu Gly Ser Ser 210 215 220

Ala Gly Val Glu Gly Lys Gly Thr Ser Cys Arg Ala Pro Trp Ala Ser 225 230 235 240

Trp Tyr Thr Gly Arg Xaa Leu Leu Asp His Arg Xaa Gln Met Gly Pro 245 250 255

Ala Leu Ser Trp Trp Pro Arg Leu Ala Pro Ala Leu Ser Pro Gly Ser 260 265 270

Ala Thr Thr Lys Pro Ser Arg Ser Thr Val Ala Pro Pro Pro Pro Pro 275 280 285

Thr

<210> 108 <211> 33

<212> PRT

<213> Homo sapiens

<400> 108

Ser Thr Phe Asp Lys Gly Tyr Gly Lys Tyr Phe Ala Ala Gly Glu Lys
1 10 15

Tyr His Thr Ser Ser Val Phe His Lys Ala Gln Arg Ala Arg Trp Lys 20 25 30

Asn

<210> 109

<211> 36

<212> PRT

<213> Homo sapiens

<400> 109

Arg Arg Ser Trp Arg Leu Ser Gly Val His Trp Ser Pro Ile Phe Cys
1 5 10 15

Val Leu Arg Gly

```
Arg Ile Ser Ala Leu Lys Val Gly Ala Asp Leu Ser His Val Phe Cys
Ala Ser Ala Ala
       35
<210> 110
<211> 36
<212> PRT
<213> Homo sapiens
<400> 110
Ala Pro Val Ile Lys Ala Tyr Ser Pro Glu Leu Ile Val His Pro Val
                                    10
Leu Asp Ser Pro Asn Ala Val His Glu Val Glu Lys Trp Leu Pro Arg
Leu His Ala Leu
<210> 111
<211> 36
<212> PRT
<213> Homo sapiens
<400> 111
Val Val Gly Pro Gly Leu Gly Arg Asp Asp Ala Leu Leu Arg Asn Val
Gln Gly Ile Leu Glu Val Ser Lys Ala Arg Asp Ile Pro Val Val Ile
Asp Ala Asp Gly
<210> 112
<211> 36
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (3)
<223> Xaa equals any of the naturally occurring L-amino acids
Leu Trp Xaa Val Ala Gln Gln Pro Ala Leu Ile His Gly Tyr Arg Lys
Ala Val Leu Thr Pro Asn His Val Glu Phe Ser Arg Leu Tyr Asp Ala
                                 25
```

```
<210> 113
<211> 36
<212> PRT
<213> Homo sapiens
<400> 113
Pro Met Asp Ser Asp Ser His Gly Ser Val Leu Arg Leu Ser Gln
Ala Leu Gly Asn Val Thr Val Val Gln Lys Gly Glu Arg Asp Ile Leu
Ser Asn Gly Gln
<210> 114
<211> 36
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (33)
<223> Kaa equals any of the naturally occurring L-amino acids
<400> 114
Gln Val Leu Val Cys Ser Gln Glu Gly Ser Ser Ala Gly Val Glu Gly
Lys Gly Thr Ser Cys Arg Ala Pro Trp Ala Ser Trp Tyr Thr Gly Arg
Xaa Leu Leu Asp
        35
<210> 115
<211> 40
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (3)
<223> Xaa equals any of the naturally occurring L-amino acids
His Arg Xaa Gln Met Gly Pro Ala Leu Ser Trp Trp Pro Arg Leu Ala
Pro Ala Leu Ser Pro Gly Ser Ala Thr Thr Lys Pro Ser Arg Ser Thr
                                 25
```

Val Ala Pro Pro Pro Pro Pro Thr

<210> 116

<211> 138

<212> PRT

<213> Homo sapiens

<400> 116

Cys Cys Arg Asn Ser Ala Arg Gly Gln Ser Gly Leu Ala Asp Glu Val 1 5 10

Arg Ser Ile Pro Phe Gly Pro Gly Met Val Thr Arg Ala Gly Ala Gly
20 25 30

Thr Ala Val Ala Gly Ala Val Val Ala Leu Leu Ser Ala Ala Leu
35 40 45

Ala Leu Tyr Gly Pro Pro Leu Asp Ala Val Leu Glu Arg Ala Phe Ser 50 55 60

Leu Arg Lys Ala His Ser Ile Lys Asp Met Glu Asn Thr Leu Gln Leu 65 70 75 80

Val Arg Asn Ile Ile Pro Pro Leu Ser Ser Thr Lys His Lys Gly Gln
85 90 95

Asp Gly Arg Ile Gly Val Val Gly Gly Cys Gln Glu Tyr Thr Gly Ala 100 105 110

Pro Tyr Phe Ala Glu Ser Gln Leu Ser Lys Trp Ala Gln Thr Cys Pro 115 120 125

Thr Cys Ser Val Pro Val Arg Pro His Leu 130 135

<210> 117

<211> 366

<212> PRT

<213> Homo sapiens

<400> 117

Ala Arg Gly Gln Ser Gly Leu Ala Asp Glu Val Arg Ser Ile Pro Phe 1 5 10 15

Gly Pro Gly Met Val Thr Arg Ala Gly Ala Gly Thr Ala Val Ala Gly
20 25 30

Ala Val Val Ala Leu Leu Ser Ala Ala Leu Ala Leu Tyr Gly Pro
35 40 45

Pro Leu Asp Ala Val Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His

Ser Ile Lys Asp Met Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile 65 70 75 80 Pro Pro Leu Ser Ser Thr Lys His Lys Gly Gln Asp Gly Arg Ile Gly
85 90 95

Val Val Gly Gly Cys Gln Glu Tyr Thr Gly Ala Pro Tyr Phe Ala Ala 100 105 110

Ile Ser Ala Leu Lys Val Gly Ala Asp Leu Ser His Val Phe Cys Ala 115 120 125

Ser Ala Ala Pro Val Ile Lys Ala Tyr Ser Pro Glu Leu Ile Val 130 135 140

His Pro Val Leu Asp Ser Pro Asn Ala Val His Glu Val Glu Lys Trp 145 150 155 160

Leu Pro Arg Leu His Ala Leu Val Val Gly Pro Gly Leu Gly Arg Asp
165 170 175

Asp Ala Leu Leu Arg Asn Val Gln Gly Ile Leu Glu Val Ser Lys Ala 180 185 190

Arg Asp Ile Pro Val Val Ile Asp Ala Asp Gly Leu Trp Leu Val Ala 195 200 205

Gln Gln Pro Ala Leu Ile His Gly Tyr Arg Lys Ala Val Leu Thr Pro 210 215 220

Asn His Val Glu Phe Ser Arg Leu Tyr Asp Ala Val Leu Arg Gly Pro 225 230 235 240

Met Asp Ser Asp Asp Ser His Gly Ser Val Leu Arg Leu Ser Gln Ala 245 250 255

Leu Gly Asn Val Thr Val Val Gln Lys Gly Glu Arg Asp Ile Leu Ser 260 265 270

Asn Gly Gln Gln Val Leu Val Cys Ser Gln Glu Gly Ser Ser Arg Arg 275 280 285

Cys Gly Gly Gln Gly Asp Leu Leu Ser Gly Ser Leu Gly Val Leu Val 290 295 300

His Trp Ala Leu Leu Ala Gly Pro Gln Lys Thr Asn Gly Ser Ser Pro 305 310 315 320

Leu Leu Val Ala Ala Phe Gly Ala Cys Ser Leu Thr Arg Gln Cys Asn 325 330 335

His Gln Ala Phe Gln Lys His Gly Arg Ser Thr Thr Thr Ser Asp Met 340 345 350

Ile Ala Glu Val Gly Ala Ala Phe Ser Lys Leu Phe Glu Thr 355 360 365

<210> 118

<211> 12

<212> PRT

```
<213> Homo sapiens
<400> 118
Gly Thr Ser Ala Ala Leu Glu Pro Pro Gly Pro Asp
<210> 119
<211> 83
<212> PRT
<213> Homo sapiens
<400> 119
Arg Thr Arg Gln Glu Arg Met Leu Phe Ser Val Ala Leu Ala Glu Met
                                     10
Lys Trp Ala Arg Phe Val Ala Val Met Gln Gly His His Thr Asn Cys
Arg Glu Tyr Cys Gln Ala Ile Phe Arg Thr Asp Ser Ser Pro Gly Pro
Ser Gln Ile Lys Ala Val Glu Asn Tyr Cys Ala Ser Ile Ser Pro Gln
     50
Leu Ile His Cys Val Asn Asn Tyr Thr Ser Ile Leu Ser Asn Glu Glu
                                          75
Pro Asn Gly
<210> 120
<211> 34
<212> PRT
<213> Homo sapiens
<400> 120
Arg Thr Arg Gln Glu Arg Met Leu Phe Ser Val Ala Leu Ala Glu Met
Lys Trp Ala Arg Phe Val Ala Val Met Gln Gly His His Thr Asn Cys
                                 25
Arg Glu
<210> 121
<211> 26
<212> PRT
<213> Homo sapiens
<400> 121
Tyr Cys Gln Ala Ile Phe Arg Thr Asp Ser Ser Pro Gly Pro Ser Gln
                  5
                                     10
Ile Lys Ala Val Glu Asn Tyr Cys Ala Ser
```

25

20

```
<210> 122
```

<211> 23

<212> PRT

<213> Homo sapiens

<400> 122

Ile Ser Pro Gln Leu Ile His Cys Val Asn Asn Tyr Thr Ser Ile Leu 1 5 10 15

Ser Asn Glu Glu Pro Asn Gly 20

<210> 123

<211> 32

<212> PRT

<213> Homo sapiens

<400> 123

His Glu Arg Cys Pro Ala Pro Val Pro Ser Val Asn Pro Leu Ser Leu 1 5 10 15

Trp Cys Trp Phe Arg Ser Arg Leu Gln Gln Asn Asp Leu Gly Thr Ser 20 25 30

<210> 124

<211> 59

<212> PRT

<213> Homo sapiens

<400> 124

His Glu Pro Ser Gln Leu Pro Arg Pro His Ser Ser Thr Gly Trp Ser 1 5 10 15

Gly Arg Lys Trp Ala Leu Lys Thr Gly Phe Ser Ala Ser Ala Ser Arg
20 25 30

Lys Pro Glu Pro Trp Arg Cys Arg Ala Thr Val Cys Pro Pro Arg Val 35 40 45

Thr Thr Ala Ser Ala Ser Ala Gln Ser Ala Asp
50 55

<210> 125

<211> 487

<212> PRT

<213> Homo sapiens

<400> 125

Ala Arg Ala Glu Pro Ala Pro Glu Thr Pro Phe Ile Tyr Arg Leu Glu

1				5					10					15	
Arg	Gln	Glu	Val 20	Gly	Ser	Glu	Asp	Trp 25	Ile	Gln	Cys	Phe	Ser 30	Ile	Glu
Lys	Ala	Gly 35	Ala	Val	Glu	Val	Pro 40	Gly	Asp	Cys	Val	Pro 45	Ser	Glu	Gly
Asp	Tyr 50	Arg	Phe	Arg	Ile	Cys 55	Thr	Val	Ser	Gly	His 60	Gly	Arg	Ser	Pro
His 65	Val	Val	Phe	His	Gly 70	Ser	Ala	His	Leu	Val 75	Pro	Thr	Ala	Arg	Leu 80
Val	Ala	Gly	Leu	Glu 85	Asp	Val	Gln	Val	Tyr 90	Asp	Gly	Glu	Asp	Ala 95	Val
Phe	Ser	Leu	Asp 100	Leu	Ser	Thr	Ile	Ile 105	Gln	Gly	Thr	Trp	Phe 110	Leu	Asn
Gly	Glu	Glu 115	Leu	Lys	Ser	Asn	Glu 120	Pro	Glu	Gly	Gln	Val 125	Glu	Pro	Gly
Ala	Leu 130	Arg	Tyr	Arg	Ile	Glu 135	Gln	Lys	Gly	Leu	Gln 140	His	Arg	Leu	Ile
Leu 145	His	Ala	Val	Lys	His 150	Gln	Asp	Ser	Gly	Ala 155	Leu	Val	Gly	Phe	Ser 160
Cys	Pro	Gly	Val	Gln 165	Asp	Ser	Ala	Ala	Leu 170	Thr	Ile	Gln	Glu	Ser 175	Pro
Val	His	Ile	Leu 180	Ser	Pro	Gln	Asp	Lys 185	Val	Ser	Leu	Thr	Phe 190	Thr	Thr
Ser	Glu	Arg 195	Val	Val	Leu	Thr	Cys 200	Glu	Leu	Ser	Arg	Val 205	Asp	Phe	Pro
Ala	Thr 210	Trp	Tyr	Lys	Asp	Gly 215	Gln	Lys	Val	Glu	Glu 220	Ser	Glu	Leu	Leu
Val 225	Val	Lys	Met	Asp	Gly 230	Arg	Lys	His	Arg	Leu 235	Ile	Leu	Pro	Glu	Ala 240
Lys	Val	Gln	Asp	Ser 245	Gly	Glu	Phe	Glu	Cys 250	Arg	Thr	Glu	Gly	Val 255	Ser
Ala	Phe	Phe	Gly 260	Val	Thr	Val	Gln	Asp 265	Pro	Pro	Val	Hịs	Ile 270	Val	Asp
Pro	Arg	Glu 275	His	Val	Phe	Val	His 280	Ala	Ile	Thr	Ser	Glu 285	Cys	Val	Met
Leu	Ala 290	CAa	Glu	Val	Asp	Arg 295	Glu	Asp	Ala	Pro	Val 300	Arg	Trp	Tyr	Lys
Asp 305	Gly	Gln	Glu	Val	Glu 310	Glu	Ser	Asp	Phe	Val 315	Val	Leu	Glu	Asn	Glu 320

Gly Pro His Arg Arg Leu Val Leu Pro Ala Thr His Pro Ser Asp Gly 325 330 335

Gly Glu Phe Gln Cys Val Ala Gly Asp Glu Cys Ala Tyr Phe Thr Val 340 345 350

Thr Ile Thr Asp Val Ser Ser Trp Ile Val Tyr Pro Ser Gly Lys Val 355 360 365

Tyr Val Ala Ala Val Arg Leu Glu Arg Val Val Leu Thr Cys Glu Leu 370 375 380

Cys Arg Pro Trp Ala Glu Val Arg Trp Thr Lys Asp Gly Glu Glu Val 385 390 395 400

Val Glu Ser Pro Ala Leu Leu Leu Gln Lys Glu Asp Thr Val Arg Arg
405 410 415

Leu Val Leu Pro Ala Val Gln Leu Glu Asp Ser Gly Glu Tyr Leu Cys 420 425 430

Glu Ile Asp Asp Glu Ser Ala Ser Phe Thr Val Thr Val Thr Glu Ser 435 440 445

Tyr Gln Ser Gln Asp Ser Ser Asn Asn Pro Glu Leu Cys Val Leu 450 455 460

Leu Lys Lys Pro Lys Thr Arg Arg Leu Trp Ser Arg Phe Pro Pro Trp 465 470 475 480

Arg Arg Thr Ala Gly Thr Glu 485

<210> 126

<211> 37

<212> PRT

<213> Homo sapiens

<400> 126

Ala Arg Ala Glu Pro Ala Pro Glu Thr Pro Phe Ile Tyr Arg Leu Glu 1 5 10 15

Arg Gln Glu Val Gly Ser Glu Asp Trp Ile Gln Cys Phe Ser Ile Glu 20 25 30

Lys Ala Gly Ala Val 35

<210> 127

<211> 37

<212> PRT

<213> Homo sapiens

<400> 127

Glu Val Pro Gly Asp Cys Val Pro Ser Glu Gly Asp Tyr Arg Phe Arg

```
10
                                                          15
  Ile Cys Thr Val Ser Gly His Gly Arg Ser Pro His Val Val Phe His
 Gly Ser Ala His Leu
          35
 <210> 128
  <211> 37
  <212> PRT
  <213> Homo sapiens
  <400> 128
  Val Pro Thr Ala Arg Leu Val Ala Gly Leu Glu Asp Val Gln Val Tyr
 Asp Gly Glu Asp Ala Val Phe Ser Leu Asp Leu Ser Thr Ile Ile Gln
  Gly Thr Trp Phe Leu
         35
 <210> 129
 <211> 37
 <212> PRT
 <213 > Homo sapiens
 <400> 129
  Asn Gly Glu Glu Leu Lys Ser Asn Glu Pro Glu Gly Gln Val Glu Pro
. Gly Ala Leu Arg Tyr Arg Ile Glu Gln Lys Gly Leu Gln His Arg Leu
  Ile Leu His Ala Val
           35
  <210> 130
  <211> 37
  <212> PRT
  <213 > Homo sapiens
  Lys His Gln Asp Ser Gly Ala Leu Val Gly Phe Ser Cys Pro Gly Val
  Gln Asp Ser Ala Ala Leu Thr Ile Gln Glu Ser Pro Val His Ile Leu
  Ser Pro Gln Asp Lys
           35
```

<210> 131

```
<211> 37
<212> PRT
<213> Homo sapiens
<400> 131
Val Ser Leu Thr Phe Thr Thr Ser Glu Arg Val Val Leu Thr Cys Glu
Leu Ser Arg Val Asp Phe Pro Ala Thr Trp Tyr Lys Asp Gly Gln Lys
Val Glu Glu Ser Glu
         35
<210> 132
<211> 37
<212> PRT
<213> Homo sapiens
<400> 132
Leu Leu Val Val Lys Met Asp Gly Arg Lys His Arg Leu Ile Leu Pro
Glu Ala Lys Val Gln Asp Ser Gly Glu Phe Glu Cys Arg Thr Glu Gly
Val Ser Ala Phe Phe
        35
<210> 133
<211> 37
<212> PRT
<213> Homo sapiens
<400> 133
Gly Val Thr Val Gln Asp Pro Pro Val His Ile Val Asp Pro Arg Glu
His Val Phe Val His Ala Ile Thr Ser Glu Cys Val Met Leu Ala Cys
Glu Val Asp Arg Glu
         35
<210> 134
<211> 37
<212> PRT
<213> Homo sapiens
<400> 134
Asp Ala Pro Val Arg Trp Tyr Lys Asp Gly Gln Glu Val Glu Glu Ser
Asp Phe Val Val Leu Glu Asn Glu Gly Pro His Arg Arg Leu Val Leu
```

```
Pro Ala Thr His Pro
        35
<210> 135
<211> 37
<212> PRT
<213> Homo sapiens
<400> 135
Ser Asp Gly Glu Phe Gln Cys Val Ala Gly Asp Glu Cys Ala Tyr
Phe Thr Val Thr Ile Thr Asp Val Ser Ser Trp Ile Val Tyr Pro Ser
                                                     30
Gly Lys Val Tyr Val
        35
<210> 136
<211> 37
<212> PRT
<213> Homo sapiens
<400> 136
Ala Ala Val Arg Leu Glu Arg Val Val Leu Thr Cys Glu Leu Cys Arg
Pro Trp Ala Glu Val Arg Trp Thr Lys Asp Gly Glu Glu Val Val Glu
Ser Pro Ala Leu Leu
         35
<210> 137
<211> 37
<212> PRT
<213> Homo sapiens
<400> 137
Leu Gln Lys Glu Asp Thr Val Arg Arg Leu Val Leu Pro Ala Val Gln
Leu Glu Asp Ser Gly Glu Tyr Leu Cys Glu Ile Asp Asp Glu Ser Ala
Ser Phe Thr Val Thr
         35
<210> 138
<211> 43
<212> PRT
<213> Homo sapiens
```

<400> 138

Val Thr Glu Ser Tyr Gln Ser Gln Asp Ser Ser Asn Asn Asn Pro Glu

1 10 15

Leu Cys Val Leu Leu Lys Lys Pro Lys Thr Arg Arg Leu Trp Ser Arg 20 25 30

Phe Pro Pro Trp Arg Arg Thr Ala Gly Thr Glu 35 40

<210> 139

<211> 510

<212> PRT

<213> Homo sapiens

<400> 139

His Glu Ser Glu Tyr Thr Thr Ser Pro Lys Ser Ser Val Leu Cys Pro 1 5 10 15

Lys Leu Pro Val Pro Ala Ser Ala Pro Ile Pro Phe Phe His Arg Cys
20 25 30

Ala Pro Val Asn Ile Ser Cys Tyr Ala Lys Phe Ala Glu Ala Leu Ile 35 40 45

Thr Phe Val Ser Asp Asn Ser Val Leu His Arg Leu Ile Ser Gly Val 50 60

Met Thr Ser Lys Glu Ile Ile Leu Gly Leu Cys Leu Leu Ser Leu Val 65 70 75 80

Leu Ser Met Ile Leu Met Val Ile Ile Arg Tyr Ile Ser Arg Val Leu 85 90 95

Val Trp Ile Leu Thr Ile Leu Val Ile Leu Gly Ser Leu Gly Gly Thr
100 105 110

Gly Val Leu Trp Trp Pro Tyr Ala Lys Gln Arg Arg Ser Pro Lys Glu 115 120 125

Thr Val Thr Pro Glu Gln Leu Gln Ile Ala Glu Asp Asn Leu Arg Ala 130 135 140

Leu Leu Ile Tyr Ala Ile Ser Ala Thr Val Phe Thr Val Ile Leu Phe 145 150 155 160

Leu Ile Met Leu Val Met Arg Lys Arg Val Ala Leu Thr Ile Ala Leu 165 170 175

Phe His Val Ala Gly Lys Val Phe Ile His Leu Pro Leu Leu Val Phe
180 185 190

Gln Pro Phe Trp Thr Phe Phe Ala Leu Val Leu Phe Trp Val Tyr Trp 195 200 205

Ile Met Thr Leu Leu Phe Leu Gly Thr Thr Gly Ser Pro Val Gln Asn 210 215 220

Glu Gln Gly Phe Val Glu Phe Lys Ile Ser Gly Pro Leu Gln Tyr Met 225 230 235 240

Trp Trp Tyr His Val Val Gly Leu Ile Trp Ile Ser Glu Phe Ile Leu 245 250 255

Ala Cys Gln Gln Met Thr Val Ala Gly Ala Val Val Thr Tyr Tyr Phe 260 265 270

Thr Arg Asp Lys Arg Asn Leu Pro Phe Thr Pro Ile Leu Ala Ser Val 275 280 285

Asn Arg Leu Ile Arg Tyr His Leu Gly Thr Val Ala Lys Gly Ser Phe 290 295 300

Ile Ile Thr Leu Val Lys Ile Pro Arg Met Ile Leu Met Tyr Ile His 305 310 315 320

Ser Gln Leu Lys Gly Lys Glu Asn Ala Cys Ala Arg Cys Val Leu Lys 325 330 335

Ser Cys Ile Cys Cys Leu Trp Cys Leu Glu Lys Cys Leu Asn Tyr Leu 340 345 350

Asn Gln Asn Ala Tyr Thr Ala Thr Ala Ile Asn Ser Thr Asn Phe Cys 355 360 365

Thr Ser Ala Lys Asp Ala Phe Val Ile Leu Val Glu Asn Ala Leu Arg 370 375 380

Val Ala Thr Ile Asn Thr Val Gly Asp Phe Met Leu Phe Leu Gly Lys 385 390 395 400

Val Leu Ile Val Cys Ser Thr Gly Leu Ala Gly Ile Met Leu Leu Asn 405 410 415

Tyr Gln Gln Asp Tyr Thr Val Trp Val Leu Pro Leu Ile Ile Val Cys 420 425 430

Leu Phe Ala Phe Leu Asp Ala His Cys Phe Leu Ser Ile Tyr Glu Met 435 440 445

Val Val Asp Val Leu Phe Leu Cys Phe Ala Ile Asp Thr Lys Tyr Asn 450 455 460

Asp Gly Ser Pro Gly Arg Glu Phe Tyr Met Asp Lys Val Leu Met Glu 465 470 475 480

Phe Val Glu Asn Ser Arg Lys Ala Met Lys Glu Ala Gly Lys Gly Gly 485 490 495

Val Ala Asp Ser Arg Glu Leu Lys Pro Met Leu Lys Lys Arg 500 505 510

```
<212> PRT
<213> Homo sapiens
<400> 140
Arg Leu Ser Ala Val Gly Ala Val Pro Phe Thr Arg Pro Asp Ala Gly
                  5
Val
<210> 141
<211> 7
<212> PRT
<213> Homo sapiens
<400> 141
Val Gly Pro Arg Ala Glu Ala
<210> 142
<211> 25
<212> PRT
<213> Homo sapiens
<400> 142
Gly Thr Arg Arg Ser Trp Gly Met Cys Arg Ala Thr Ala Gly Trp Ser
Pro Ala Glu Pro Pro Leu His Leu Trp
            20
<210> 143
<211> 267
<212> PRT
<213> Homo sapiens
<400> 143
His Glu Lys Glu Leu Gly Asp Val Gln Gly His Gly Arg Val Val Thr
Ser Arg Ala Ala Pro Pro Pro Val Asp Glu Glu Pro Glu Ser Ser Glu
Val Asp Ala Ala Gly Arg Trp Pro Gly Val Cys Val Ser Arg Thr Ser
Pro Thr Pro Pro Glu Ser Ala Thr Thr Val Lys Ser Leu Ile Lys Ser
Phe Asp Leu Gly Arg Pro Gly Gly Ala Gly Gln Asn Ile Ser Val His
Lys Thr Pro Arg Ser Pro Leu Ser Gly Ile Pro Val Arg Thr Ala Pro
```

Ala Ala Ala Val Ser Pro Met Gln Arg His Ser Thr Tyr Ser Ser Val
100 105 110

Arg Pro Ala Ser Arg Gly Val Thr Gln Arg Leu Asp Leu Pro Asp Leu 115 120 125

Pro Leu Ser Asp Ile Leu Lys Gly Arg Thr Glu Thr Leu Lys Pro Asp 130 135

Pro His Leu Arg Lys Ser Pro Ser Leu Glu Ser Leu Ser Arg Pro Pro 145 150 155 160

Ser Leu Gly Phe Gly Asp Thr Arg Leu Leu Ser Ala Ser Thr Arg Ala 165 170 175

Trp Lys Pro Gln Ser Lys Leu Ser Val Glu Arg Lys Asp Pro Leu Ala 180 185 190

Ala Leu Ala Arg Glu Tyr Gly Gly Ser Lys Arg Asn Ala Leu Leu Lys 195 200 205

Trp Cys Gln Lys Lys Thr Gln Gly Tyr Ala Lys Arg Asn Leu Leu Leu 210 215 220

Ala Phe Glu Ala Ala Glu Ser Val Gly Ile Lys Pro Ser Leu Glu Leu 225 230 235 240

Ser Glu Met Leu Tyr Thr Asp Arg Pro Asp Trp Gln Ser Val Met Gln 245 250 255

Tyr Val Ala Gln Ile Tyr Lys Tyr Phe Glu Thr 260 265

<210> 144

<211> 42

<212> PRT

<213> Homo sapiens

<400> 144

His Glu Lys Glu Leu Gly Asp Val Gln Gly His Gly Arg Val Val Thr

Ser Arg Ala Ala Pro Pro Pro Val Asp Glu Glu Pro Glu Ser Ser Glu 20 25 30

Val Asp Ala Ala Gly Arg Trp Pro Gly Val

<210> 145

<211> 42

<212> PRT

<213> Homo sapiens

<400> 145

Cys Val Ser Arg Thr Ser Pro Thr Pro Pro Glu Ser Ala Thr Thr Val

<211> 57

Lys Ser Leu Ile Lys Ser Phe Asp Leu Gly Arg Pro Gly Gly Ala Gly Gln Asn Ile Ser Val His Lys Thr Pro Arg <210> 146 <211> 42 <212> PRT <213> Homo sapiens <400> 146 Ser Pro Leu Ser Gly Ile Pro Val Arg Thr Ala Pro Ala Ala Val 10 Ser Pro Met Gln Arg His Ser Thr Tyr Ser Ser Val Arg Pro Ala Ser Arg Gly Val Thr Gln Arg Leu Asp Leu Pro 35 <210> 147 <211> 42 <212> PRT <213> Homo sapiens <400> 147 Asp Leu Pro Leu Ser Asp Ile Leu Lys Gly Arg Thr Glu Thr Leu Lys Pro Asp Pro His Leu Arg Lys Ser Pro Ser Leu Glu Ser Leu Ser Arg 25 Pro Pro Ser Leu Gly Phe Gly Asp Thr Arg <210> 148 <211> 42 <212> PRT <213> Homo sapiens <400> 148 Leu Leu Ser Ala Ser Thr Arg Ala Trp Lys Pro Gln Ser Lys Leu Ser Val Glu Arg Lys Asp Pro Leu Ala Ala Leu Ala Arg Glu Tyr Gly Gly Ser Lys Arg Asn Ala Leu Leu Lys Trp Cys <210> 149

```
<212> PRT
<213> Homo sapiens
<400> 149
Gln Lys Lys Thr Gln Gly Tyr Ala Lys Arg Asn Leu Leu Leu Ala Phe
Glu Ala Ala Glu Ser Val Gly Ile Lys Pro Ser Leu Glu Leu Ser Glu
Met Leu Tyr Thr Asp Arg Pro Asp Trp Gln Ser Val Met Gln Tyr Val
Ala Gln Ile Tyr Lys Tyr Phe Glu Thr
<210> 150
<211> 19
<212> PRT
<213> Homo sapiens
<400> 150
Ser Val Ser Lys Leu Pro Ala Asn Gly Lys Asn Val Asp Asp Val Ile
Arg Asn Gln
<210> 151
<211> 138
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (110)
<223> Xaa equals any of the naturally occurring L-amino acids
Thr Ser Met Thr Leu Phe Arg Ala Asp Thr Val Lys Asn Ile Glu Gly
Glu Leu Thr Gln Ser Ala Arg Leu Gly Cys Gly Gly Gly Cys Leu Gly
Gly Trp Leu Gln Phe His Leu Thr Val Ser Ser Phe Ser Gly Phe Glu
Val Arg Gln Leu His Ala Gly Gly Ala Arg Lys Ala Glu Ser Arg Gln
Gly Ser Asp Thr Gly Glu Arg Ala Cys Asp Leu Leu Ala Asp Thr Asn
Pro Val Ala Arg Gly His His Phe Gln Gly Cys Trp Glu Gly Pro Gln
```

Leu Trp His

35

Ser Arg Val Ser Ala Ser Leu Trp His Gly His Ser Gly Xaa Pro Ser 100 105 Leu His Ala Pro Pro Thr Ser Ala Ser His Pro Phe His Phe Leu Pro 115 Thr Thr Met His Leu His Ser Glu Ser Ser 135 <210> 152 <211> 35 <212> PRT <213> Homo sapiens <400> 152 Thr Ser Met Thr Leu Phe Arg Ala Asp Thr Val Lys Asn Ile Glu Gly Glu Leu Thr Gln Ser Ala Arg Leu Gly Cys Gly Gly Cys Leu Gly Gly Trp Leu 35 <210> 153 <211> 35 <212> PRT <213> Homo sapiens <400> 153 Gln Phe His Leu Thr Val Ser Ser Phe Ser Gly Phe Glu Val Arg Gln Leu His Ala Gly Gly Ala Arg Lys Ala Glu Ser Arg Gln Gly Ser Asp Thr Gly Glu 35 <210> 154 <211> 35 <212> PRT <213> Homo sapiens <400> 154 Arg Ala Cys Asp Leu Leu Ala Asp Thr Asn Pro Val Ala Arg Gly His His Phe Gln Gly Cys Trp Glu Gly Pro Gln Ser Arg Val Ser Ala Ser

```
<210> 155
<211> 33
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 155
Gly His Ser Gly Xaa Pro Ser Leu His Ala Pro Pro Thr Ser Ala Ser
                                      10
His Pro Phe His Phe Leu Pro Thr Thr Met His Leu His Ser Glu Ser
                                 25
Ser
<210> 156
<211> 107
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids
<221> SITE
<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 156
Glu Arg Ala Ser Ala Trp Pro Gly His Ser Pro Phe Ser Cys Thr Leu
Arg His Pro Lys Thr Leu Ala Val Ser Pro Ala Pro Val Tyr Leu Leu
                                  25
Ser Ser Ser Ala Leu Phe Leu Pro Leu Thr Xaa Leu Pro Gly Ile Leu
         35
Ser Gln Pro Glu Xaa Asn Pro Asn Arg Asn Glu Met Leu Ser Gly Asn
Leu Thr Lys Glu Ala Gln Ser His Phe Val Leu Pro Ser Pro His Ile
                     70
                                          75
Pro Arg Thr Thr Ala Tyr Phe Lys Arg Thr Gln Thr Ile His Leu Tyr
Lys Gly Thr Ala Arg Lys Arg Ser Arg Gln Arg
```

```
<210> 157
<211> 35
<212> PRT
<213> Homo sapiens
<400> 157
Glu Arg Ala Ser Ala Trp Pro Gly His Ser Pro Phe Ser Cys Thr Leu
Arg His Pro Lys Thr Leu Ala Val Ser Pro Ala Pro Val Tyr Leu Leu
Ser Ser Ser
         35
~<210> 158
<211> 35
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
 <222> (18)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 158
Ala Leu Phe Leu Pro Leu Thr Xaa Leu Pro Gly Ile Leu Ser Gln Pro
 Glu Xaa Asn Pro Asn Arg Asn Glu Met Leu Ser Gly Asn Leu Thr Lys
 Glu Ala Gln
         35
 <210> 159
 <211> 37
 <212> PRT
 <213> Homo sapiens
 <400> 159
 Ser His Phe Val Leu Pro Ser Pro His Ile Pro Arg Thr Thr Ala Tyr
 Phe Lys Arg Thr Gln Thr Ile His Leu Tyr Lys Gly Thr Ala Arg Lys
 Arg Ser Arg Gln Arg
```

```
<210> 160
<211> 47
<212> PRT
<213> Homo sapiens
<400> 160
Lys Val Pro Asn Pro Leu Val Val Thr Ser Ile His Pro Thr Leu Ala
Gln Leu Gln Ile Ala Thr Arg Ser His Ser Ser Ser Cys Cys Leu Tyr
Arg Phe Ser Asn Ser Gly His Phe Ile Ser Met Glu Ser Tyr Asn
                             40
<210> 161
<211> 218
<212> PRT
<213> Homo sapiens
<400> 161
Gly Pro Ser Trp Pro Leu Trp Pro Arg Ser Ser Leu Gly Pro Cys Leu
Val Tyr Arg Val Trp Gly Asp Ser Met Cys Thr Pro Leu Leu Ser Gln
Val Asp Phe Glu Gln Leu Thr Glu Asn Leu Gly Gln Leu Glu Arg Arg
Ser Arg Ala Ala Glu Glu Ser Leu Arg Thr Trp Pro Ser Met Ser Trp
Pro Gln Pro Cys Val Pro Ala Ser Pro Thr Ser Trp Thr Ser Val Pro
                                          75
Ala Arg Val Ala Met Leu Arg Ile Val His Arg Arg Val Cys Asn Arg
Phe His Ala Phe Leu Leu Tyr Leu Gly Tyr Thr Pro Gln Ala Ala Arg
                                 105
Glu Val Arg Ile Met Gln Phe Cys His Thr Leu Arg Glu Phe Ala Leu
Glu Tyr Arg Thr Cys Arg Glu Arg Val Leu Gln Gln Gln Lys Gln
                         135
Ala Thr Tyr Arg Glu Arg Asn Lys Thr Arg Gly Arg Met Ile Thr Glu
                    150
 Val Gly Ala Leu Pro Gly Leu Ser Leu Asp Cys His Leu Leu Gly Phe
```

170

Leu Arg Ser Ser Gln Leu Thr Leu Leu Leu Ser Pro Asp Arg Glu Val

180 185 190 Leu Arg Cys Gly Trp Gly Ser Pro Gln Gln Pro Leu Cys Pro Ser Ser 200 Ser Glu Gln Arg Ala Arg Pro Gly Arg Cys <210> 162 <211> 36 <212> PRT <213> Homo sapiens <400> 162 Gly Pro Ser Trp Pro Leu Trp Pro Arg Ser Ser Leu Gly Pro Cys Leu Val Tyr Arg Val Trp Gly Asp Ser Met Cys Thr Pro Leu Leu Ser Gln 25 Val Asp Phe Glu 35 <210> 163 <211> 36 <212> PRT <213> Homo sapiens Gln Leu Thr Glu Asn Leu Gly Gln Leu Glu Arg Arg Ser Arg Ala Ala 5 Glu Glu Ser Leu Arg Thr Trp Pro Ser Met Ser Trp Pro Gln Pro Cys 25 Val Pro Ala Ser 35 <210> 164 <211> 36 <212> PRT <213> Homo sapiens Pro Thr Ser Trp Thr Ser Val Pro Ala Arg Val Ala Met Leu Arg Ile Val His Arg Arg Val Cys Asn Arg Phe His Ala Phe Leu Leu Tyr Leu

<210> 165

Gly Tyr Thr Pro 35

```
<211> 36
<212> PRT
<213> Homo sapiens
<400> 165
Gln Ala Ala Arg Glu Val Arg Ile Met Gln Phe Cys His Thr Leu Arg
Glu Phe Ala Leu Glu Tyr Arg Thr Cys Arg Glu Arg Val Leu Gln Gln
Gln Gln Lys Gln
<210> 166
<211> 36
<212> PRT
<213> Homo sapiens
<400> 166
Ala Thr Tyr Arg Glu Arg Asn Lys Thr Arg Gly Arg Met Ile Thr Glu
Val Gly Ala Leu Pro Gly Leu Ser Leu Asp Cys His Leu Leu Gly Phe
Leu Arg Ser Ser
        35
<210> 167
<211> 38
<212> PRT
<213> Homo sapiens
Gln Leu Thr Leu Leu Ser Pro Asp Arg Glu Val Leu Arg Cys Gly
Trp Gly Ser Pro Gln Gln Pro Leu Cys Pro Ser Ser Ser Glu Gln Arg
Ala Arg Pro Gly Arg Cys
         35
<210> 168
<211> 35
<212> PRT
<213> Homo sapiens
<400> 168
Gly Ala Leu Leu Pro Gly Pro Gly Ser Ser Pro Phe Ser Pro Phe Gly
Leu Leu Cys Gln Gly Leu Leu Gln Pro Pro Gly Cys Glu Leu Cys Pro
```

Leu Pro Glu 35

<210> 169

<211> 702

<212> PRT

<213> Homo sapiens

<400> 169

Gly Thr Ser Lys Tyr Gly Asp Gln His Ser Ala Ala Gly Arg Asn Gly
1 10 15

Lys Pro Lys Val Ile Ala Val Thr Arg Ser Thr Ser Ser Thr Ser Ser 20 25 30

Gly Ser Asn Ser Asn Ala Leu Val Pro Val Ser Trp Lys Arg Pro Gln 35 40 45

Leu Ser Gln Arg Arg Thr Arg Glu Lys Leu Met Asn Val Leu Ser Leu 50 55 60

Cys Gly Pro Glu Ser Gly Leu Pro Lys Asn Pro Ser Val Val Phe Ser
65 70 75 80

Ser Asn Glu Asp Leu Glu Val Gly Asp Gln Gln Thr Ser Leu Ile Ser 85 90 95

Thr Thr Glu Asp Ile Asn Glu Glu Glu Val Ala Val Glu Asp Asn 100 105 110

Ser Ser Glu Gln Gln Phe Gly Val Phe Lys Asp Phe Asp Phe Leu Asp 115 120 125

Val Glu Leu Glu Asp Ala Glu Gly Glu Ser Met Asp Asn Phe Asn Trp 130 135 140

Gly Val Arg Arg Arg Ser Leu Asp Ser Ile Asp Lys Gly Asp Thr Pro 145 150 155 160

Ser Leu Gln Glu Tyr Gln Cys Ser Ser Ser Thr Pro Ser Leu Asn Leu 165 170 175

Thr Asn Gln Glu Asp Thr Asp Glu Ser Ser Glu Glu Glu Ala Ala Leu 180 185 190

Thr Ala Ser Gln Ile Leu Ser Arg Thr Gln Met Leu Asn Ser Asp Ser 195 200 205

Ala Thr Asp Glu Thr Ile Pro Asp His Pro Asp Leu Leu Gln Ser 210 215 220

Glu Asp Ser Thr Gly Ser Ile Thr Thr Glu Glu Val Leu Gln Ile Arg
225 230 235 240

Asp Glu Thr Pro Thr Leu Glu Ala Ser Leu Asp Asn Ala Asn Ser Arg 245 250 255 Leu Pro Glu Asp Thr Thr Ser Val Leu Lys Glu Glu His Val Thr Thr 260 265 270

Phe Glu Asp Glu Gly Ser Tyr Ile Ile Gln Glu Gln Glu Ser Leu 275 280 285

Val Cys Gln Gly Ile Leu Asp Leu Glu Glu Thr Glu Met Pro Glu Pro 290 295 300

Leu Ala Pro Glu Ser Tyr Pro Glu Ser Val Cys Glu Glu Asp Val Thr 305 310 315 320

Leu Ala Leu Lys Glu Leu Asp Glu Arg Cys Glu Glu Glu Glu Ala Asp 325 330 . 335

Phe Ser Gly Leu Ser Ser Gln Asp Glu Glu Glu Gln Asp Gly Phe Pro 340 345 350

Glu Val Gln Thr Ser Pro Leu Pro Ser Pro Phe Leu Ser Ala Ile Ile 355 360 365

Ala Ala Phe Gln Pro Val Ala Tyr Asp Asp Glu Glu Glu Ala Trp Arg 370 375 380

Cys His Val Asn Gln Met Leu Ser Asp Thr Asp Gly Ser Ser Ala Val 385 390 395 400

Phe Thr Phe His Val Phe Ser Arg Leu Phe Gln Thr Ile Gln Arg Lys 405 410 415

Phe Gly Glu Ile Thr Asn Glu Ala Val Ser Phe Leu Gly Asp Ser Leu 420 425 430

Gln Arg Ile Gly Thr Lys Phe Lys Ser Ser Leu Glu Val Met Met Leu 435 440 445

Cys Ser Glu Cys Pro Thr Val Phe Val Asp Ala Glu Thr Leu Met Ser 450 460

Cys Gly Leu Leu Glu Thr Leu Lys Phe Gly Val Leu Glu Leu Gln Glu 465 470 475 480

His Leu Asp Thr Tyr Asn Val Lys Arg Glu Ala Ala Glu Gln Trp Leu 485 490 495

Asp Asp Cys Lys Arg Thr Phe Gly Ala Lys Glu Asp Met Tyr Arg Ile 500 505 510

Asn Thr Asp Ala Gln Glu Leu Glu Leu Cys Arg Arg Leu Tyr Lys Leu 515 520 525

His Phe Gln Leu Leu Leu Phe Gln Ala Tyr Cys Lys Leu Ile Asn 530 540

Gln Val Asn Thr Ile Lys Asn Glu Ala Glu Val Ile Asn Met Ser Glu 545 550 555 560

Glu Leu Ala Gln Leu Glu Ser Ile Leu Lys Glu Ala Glu Ser Ala Ser 565 570 575

Glu Asn Glu Glu Ile Asp Ile Ser Lys Ala Ala Gln Thr Thr Ile Glu 580 585 590

Thr Ala Ile His Ser Leu Ile Glu Thr Leu Lys Asn Lys Glu Phe Ile 595 600 605

Ser Ala Val Ala Gln Val Lys Ala Phe Arg Ser Leu Trp Pro Ser Asp 610 615 620

Ile Phe Gly Ser Cys Glu Asp Asp Pro Val Gln Thr Leu Ile His Ile 625 630 635 640

Tyr Phe His His Gln Thr Leu Gly Gln Thr Gly Ser Phe Ala Val Ile 645 650 655

Gly Ser Asn Leu Asp Met Ser Glu Ala Asn Tyr Lys Leu Met Glu Leu 660 670

Asn Leu Glu Ile Arg Glu Ser Leu Arg Met Val Gln Ser Tyr Gln Leu 675 680 685

Leu Ala Gln Ala Lys Pro Met Gly Asn Met Val Ser Thr Gly 690 695 700

<210> 170

<211> 37

<212> PRT

<213> Homo sapiens

<400> 170

Gly Thr Ser Lys Tyr Gly Asp Gln His Ser Ala Ala Gly Arg Asn Gly
1 10 15

Lys Pro Lys Val Ile Ala Val Thr Arg Ser Thr Ser Ser Thr Ser Ser 20 30

Gly Ser Asn Ser Asn 35

<210> 171

<211> 37

<212> PRT

<213> Homo sapiens

<400> 171

Ala Leu Val Pro Val Ser Trp Lys Arg Pro Gln Leu Ser Gln Arg Arg

1 10 15

Thr Arg Glu Lys Leu Met Asn Val Leu Ser Leu Cys Gly Pro Glu Ser 20 25 30

Gly Leu Pro Lys Asn

```
<210> 172
<211> 37
<212> PRT
<213> Homo sapiens
<400> 172
Pro Ser Val Val Phe Ser Ser Asn Glu Asp Leu Glu Val Gly Asp Gln
    5
                       10
Gln Thr Ser Leu Ile Ser Thr Thr Glu Asp Ile Asn Gln Glu Glu
                                25
Val Ala Val Glu Asp
        35
<210> 173
<211> 37
<212> PRT
<213> Homo sapiens
<400> 173
Asn Ser Ser Glu Gln Gln Phe Gly Val Phe Lys Asp Phe Asp Phe Leu
Asp Val Glu Leu Glu Asp Ala Glu Gly Glu Ser Met Asp Asn Phe Asn
Trp Gly Val Arg Arg
       35
<210> 174
<211> 37
<212> PRT
<21.3 > Homo sapiens
<400> 174
Arg Ser Leu Asp Ser Ile Asp Lys Gly Asp Thr Pro Ser Leu Gln Glu
Tyr Gln Cys Ser Ser Ser Thr Pro Ser Leu Asn Leu Thr Asn Gln Glu
                                25
                                                   3.0
Asp Thr Asp Glu Ser
        35
<210> 175
<211> 37
<212> PRT
<213> Homo sapiens
<400> 175
Ser Glu Glu Glu Ala Ala Leu Thr Ala Ser Gln Ile Leu Ser Arg Thr
                                   10
                5
```

<211> 37

```
Gln Met Leu Asn Ser Asp Ser Ala Thr Asp Glu Thr Ile Pro Asp His
                                 25
Pro Asp Leu Leu Leu
     35
<210> 176
<211> 37
<212> PRT
<213> Homo sapiens
<400> 176
Gln Ser Glu Asp Ser Thr Gly Ser Ile Thr Thr Glu Glu Val Leu Gln
Ile Arg Asp Glu Thr Pro Thr Leu Glu Ala Ser Leu Asp Asn Ala Asn
Ser Arg Leu Pro Glu
        35
<210> 177
<211> 37
<212> PRT
<213> Homo sapiens
<400> 177
Asp Thr Thr Ser Val Leu Lys Glu Glu His Val Thr Thr Phe Glu Asp
                5
                                     10
Glu Gly Ser Tyr Ile Ile Gln Glu Gln Glu Ser Leu Val Cys Gln
Gly Ile Leu Asp Leu
        35
<210> 178
<211> 37
<212> PRT
<213> Homo sapiens
<400> 178
Glu Glu Thr Glu Met Pro Glu Pro Leu Ala Pro Glu Ser Tyr Pro Glu
Ser Val Cys Glu Glu Asp Val Thr Leu Ala Leu Lys Glu Leu Asp Glu
Arg Cys Glu Glu Glu
        35
<210> 179
```

```
<212> PRT
<213> Homo sapiens
<400> 179
Glu Ala Asp Phe Ser Gly Leu Ser Ser Gln Asp Glu Glu Glu Gln Asp
Gly Phe Pro Glu Val Gln Thr Ser Pro Leu Pro Ser Pro Phe Leu Ser
                                 25
Ala Ile Ile Ala Ala
       3.5
<210> 180
<211> 37
<212> PRT
<213> Homo sapiens
<400> 180
Phe Gln Pro Val Ala Tyr Asp Asp Glu Glu Glu Ala Trp Arg Cys His
Val Asn Gln Met Leu Ser Asp Thr Asp Gly Ser Ser Ala Val Phe Thr
Phe His Val Phe Ser
<210> 181
<211> 37
<212> PRT
<213> Homo sapiens
<400> 181
Arg Leu Phe Gln Thr Ile Gln Arg Lys Phe Gly Glu Ile Thr Asn Glu
                         .
Ala Val Ser Phe Leu Gly Asp Ser Leu Gln Arg Ile Gly Thr Lys Phe
Lys Ser Ser Leu Glu
       35
<210> 182
<211> 37
<212> PRT
<213> Homo sapiens
<400> 182
Val Met Met Leu Cys Ser Glu Cys Pro Thr Val Phe Val Asp Ala Glu
Thr Leu Met Ser Cys Gly Leu Leu Glu Thr Leu Lys Phe Gly Val Leu
```

<400> 186

```
Glu Leu Gln Glu His
    35
<210> 183
<211> 37
<212> PRT
<213> Homo sapiens
<400> 183
Leu Asp Thr Tyr Asn Val Lys Arg Glu Ala Ala Glu Gln Trp Leu Asp
Asp Cys Lys Arg Thr Phe Gly Ala Lys Glu Asp Met Tyr Arg Ile Asn
Thr Asp Ala Gln Glu
     35
<210> 184
<211> 37
<212> PRT
<213> Homo sapiens
<400> 184
Leu Glu Leu Cys Arg Arg Leu Tyr Lys Leu His Phe Gln Leu Leu
Leu Phe Gln Ala Tyr Cys Lys Leu Ile Asn Gln Val Asn Thr Ile Lys
Asn Glu Ala Glu Val
        35
<210> 185
<211> 37
<212> PRT
<213> Homo sapiens
<400> 185
Ile Asn Met Ser Glu Glu Leu Ala Gln Leu Glu Ser Ile Leu Lys Glu
Ala Glu Ser Ala Ser Glu Asn Glu Glu Ile Asp Ile Ser Lys Ala Ala
Gln Thr Thr Ile Glu
        35
<210> 186
<211> 37
<212> PRT
<213> Homo sapiens
```

Thr Ala Ile His Ser Leu Ile Glu Thr Leu Lys Asn Lys Glu Phe Ile Ser Ala Val Ala Gln Val Lys Ala Phe Arg Ser Leu Trp Pro Ser Asp Ile Phe Gly Ser Cys 35 <210> 187 <211> 37 <212> PRT <213> Homo sapiens <400> 187 Glu Asp Asp Pro Val Gln Thr Leu Ile His Ile Tyr Phe His His Gln Thr Leu Gly Gln Thr Gly Ser Phe Ala Val Ile Gly Ser Asn Leu Asp 20 Met Ser Glu Ala Asn 35 <210> 188 <211> 36 <212> PRT <213> Homo sapiens <400> 188 Tyr Lys Leu Met Glu Leu Asn Leu Glu Ile Arg Glu Ser Leu Arg Met 10 Val Gln Ser Tyr Gln Leu Leu Ala Gln Ala Lys Pro Met Gly Asn Met 25 Val Ser Thr Gly 35 <210> 189 <211> 703 <212> PRT <213> Homo sapiens <400> 189 Gly Thr Ser Lys Tyr Gly Asp Gln His Ser Ala Ala Gly Arg Asn Gly Lys Pro Lys Val Ile Ala Val Thr Arg Ser Thr Ser Ser Thr Ser Ser

Leu Ser Gln Arg Arg Thr Arg Glu Lys Leu Met Asn Val Leu Ser Leu

Gly Ser Asn Ser Asn Ala Leu Val Pro Val Ser Trp Lys Arg Pro Gln

Cys 65	Gly	Pro	Glu	Ser	Gly 70	Leu	Pro	Lys	Asn	Pro 75	Ser	Val	Val	Phe	Ser 80
Ser	Asn	Glu	Asp	Leu 85	Glu	Val	Gly	Asp	Gln 90	Gln	Thr	Ser	Leu	Ile 95	Ser
Thr	Thr	Glu	Asp 100	Ile	Asn	Gln	Glu	Glu 105	Glu	Val	Ala	Val	Glu 110	Asp	Asn
Ser	Ser	Glu 115	Gln	Gln	Phe	Gly	Val 120	Phe	Lys	Asp	Phe	Asp 125	Phe	Leu	Asp
Val	Glu 130	Leu	Glu	Asp	Ala	Glu 135	Gly	Glu	Ser	Met	Asp 140	Asn	Phe	Asn	Trp
Gly 145	Val	Arg	Arg	Arg	Ser 150	Leu	Asp	Ser	Ile	Asp 155	Lys	Gly	Asp	Thr	Pro 160
Ser	Leu	Gln	Glu	Tyr 165	Gln	Cys	Ser	Ser	Ser 170	Thr	Pro	Ser	Leu	Asn 175	Leu
Thr	Asn	Gln	Glu 180	Asp	Thr	Asp	Glu	Ser 185	Ser	Glu	Glu	Glu	Ala 190	Ala	Leu
Thr	Ala	Ser 195	Gln	Ile	Leu	Ser	Arg 200	Thr	Gln	Met	Leu	Asn 205	Ser	Asp	Ser
Ala	Thr 210		Glu	Thr	Ile	Pro 215	Asp	His	Pro	Asp	Leu 220	Leu	Leu	Gln	Ser
Glu 225		Ser	Thr	Gly	Ser 230	Ile	Thr	Thr	Glu	Glu 235	Val	Leu	Gln	Ile	Arg 240
Asp	Glu	Thr	Pro	Thr 245	Leu	Glu	Ala	Ser	Leu 250	Asp	Asn	Ala	Asn	Ser 255	Arg
Leu	. Pro	Glu	Asp 260	Thr	Thr	Ser	· Val	Leu 265		Glu	Glu	His	Val 270	Thr	Thr
		275	ı				280	t				285			Leu
Val	. Cys		. Gly	Ile	Leu	Asp 295		ı Glu	ı Glu	ı Thr	Glu 300	Met	Pro	Glu	Pro
Leu 305		Pro	Glu	. Ser	310		Glu	ı Ser	. Val	1 Cys 315		ı Glu	Asp	Val	Thr 320
Leu	ı Ala	ı Lev	ı Lys	325		ı Asp	Glu	ı Arg	330		ı Glu	ı Glu	Glu	Ala 335	Asp
Phe	e Sei	Gl <sub>y</sub>	/ Leu		Sei	Glr	n Asp	Gli 345		ı Glu	ı Glr	n Asp	350	Phe	Pro
Gli	ı Val	l Glr 359		Ser	Pro	Let	1 Pro		r Pro	o Phe	e Lei	365	Ala	Ile	: Ile

Ala Ala Phe Gln Pro Val Ala Tyr Asp Asp Glu Glu Glu Ala Trp Arq Cys His Val Asn Gln Met Leu Ser Asp Thr Asp Gly Ser Ser Ala Val 395 Phe Thr Phe His Val Phe Ser Arg Leu Phe Gln Thr Ile Gln Arg Lys 410 Phe Gly Glu Ile Thr Asn Glu Ala Val Ser Phe Leu Gly Asp Ser Leu Gln Arg Ile Gly Thr Lys Phe Lys Ser Ser Leu Glu Val Met Met Leu Cys Ser Glu Cys Pro Thr Val Phe Val Asp Ala Glu Thr Leu Met Ser Cys Gly Leu Leu Glu Thr Leu Lys Phe Gly Val Leu Glu Leu Gln Glu His Leu Asp Thr Tyr Asn Val Lys Arg Glu Ala Ala Glu Gln Trp Leu Asp Asp Cys Lys Arg Thr Phe Gly Ala Lys Glu Asp Met Tyr Arg Ile Asn Thr Asp Ala Gln Glu Leu Glu Leu Cys Arg Arg Leu Tyr Lys Leu 520 His Phe Gln Leu Leu Leu Phe Gln Ala Tyr Cys Lys Leu Ile Asn Gln Val Asn Thr Ile Lys Asn Glu Ala Glu Val Ile Asn Met Ser Glu Glu Leu Ala Gln Leu Glu Ser Ile Leu Lys Glu Ala Glu Ser Ala Ser Glu Asn Glu Glu Ile Asp Ile Ser Lys Ala Ala Gln Thr Thr Ile Glu Thr Ala Ile His Ser Leu Ile Glu Thr Leu Lys Asn Lys Glu Phe Ile Ser Ala Val Ala Gln Val Lys Ala Phe Arg Ser Leu Trp Pro Ser Asp Ile Phe Gly Ser Cys Glu Asp Asp Pro Val Gln Thr Leu Ile His Ile Tyr Phe His His Gln Thr Leu Gly Gln Thr Gly Ser Phe Ala Val Ile

Gly Ser Asn Leu Asp Met Ser Glu Ala Asn Tyr Lys Leu Met Glu Leu

665

660

Asn Leu Glu Ile Arg Glu Ser Leu Arg Met Val Gln Ser Tyr Gln Leu 675 680 685

Leu Ala Gln Ala Lys Pro Met Gly Asn Met Val Ser Thr Gly Phe 690 695 700

<210> 190

<211> 645

<212> PRT

<213> Homo sapiens

<400> 190

Met Asn Val Leu Ser Leu Cys Gly Pro Glu Ser Gly Leu Pro Lys Asn 1 5 10 15

Pro Ser Val Val Phe Ser Ser Asn Glu Asp Leu Glu Val Gly Asp Gln 20 25 30

Gln Thr Ser Leu Ile Ser Thr Thr Glu Asp Ile Asn Gln Glu Glu Glu 45

Val Ala Val Glu Asp Asn Ser Ser Glu Gln Gln Phe Gly Val Phe Lys 50 55 60

Asp Phe Asp Phe Leu Asp Val Glu Leu Glu Asp Ala Glu Gly Glu Ser 65 70 75 80

Met Asp Asn Phe Asn Trp Gly Val Arg Arg Arg Ser Leu Asp Ser Ile 85 90 95

Asp Lys Gly Asp Thr Pro Ser Leu Gln Glu Tyr Gln Cys Ser Ser Ser 100 105 110

Thr Pro Ser Leu Asn Leu Thr Asn Gln Glu Asp Thr Asp Glu Ser Ser 115 120 125

Glu Glu Glu Ala Ala Leu Thr Ala Ser Gln Ile Leu Ser Arg Thr Gln 130 135 140

Met Leu Asn Ser Asp Ser Ala Thr Asp Glu Thr Ile Pro Asp His Pro 145 150 155 160

Asp Leu Leu Gln Ser Glu Asp Ser Thr Gly Ser Ile Thr Thr Glu

Glu Val Leu Gln Ile Arg Asp Glu Thr Pro Thr Leu Glu Ala Ser Leu 180 185 190

Asp Asn Ala Asn Ser Arg Leu Pro Glu Asp Thr Thr Ser Val Leu Lys
195 200 205

Glu Glu His Val Thr Thr Phe Glu Asp Glu Gly Ser Tyr Ile Ile Gln 210 215 220

Glu Gln Gln Glu Ser Leu Val Cys Gln Gly Ile Leu Asp Leu Glu Glu 225 230 235 240

Thr Glu Met Pro Glu Pro Leu Ala Pro Glu Ser Tyr Pro Glu Ser Val 245 250 255

Cys Glu Glu Asp Val Thr Leu Ala Leu Lys Glu Leu Asp Glu Arg Cys 260 265 270

Glu Glu Glu Ala Asp Phe Ser Gly Leu Ser Ser Gln Asp Glu Glu 275 280 285

Glu Gln Asp Gly Phe Pro Glu Val Gln Thr Ser Pro Leu Pro Ser Pro 290 295 300

Phe Leu Ser Ala Ile Ile Ala Ala Phe Gln Pro Val Ala Tyr Asp Asp 305 310 315 320

Glu Glu Glu Ala Trp Arg Cys His Val Asn Gln Met Leu Ser Asp Thr
325 330 335

Asp Gly Ser Ser Ala Val Phe Thr Phe His Val Phe Ser Arg Leu Phe 340 345 350

Gln Thr Ile Gln Arg Lys Phe Gly Glu Ile Thr Asn Glu Ala Val Ser 355 360 365

Phe Leu Gly Asp Ser Leu Gln Arg Ile Gly Thr Lys Phe Lys Ser Ser 370 375 380

Leu Glu Val Met Met Leu Cys Ser Glu Cys Pro Thr Val Phe Val Asp 385 390 395 400

Ala Glu Thr Leu Met Ser Cys Gly Leu Leu Glu Thr Leu Lys Phe Gly
405 410 415

Val Leu Glu Leu Gln Glu His Leu Asp Thr Tyr Asn Val Lys Arg Glu
420 425 430

Ala Ala Glu Gln Trp Leu Asp Asp Cys Lys Arg Thr Phe Gly Ala Lys 435 440 445

Glu Asp Met Tyr Arg Ile Asn Thr Asp Ala Gln Glu Leu Glu Leu Cys 450 455 460

Arg Arg Leu Tyr Lys Leu His Phe Gln Leu Leu Leu Phe Gln Ala 465 470 475 480

Tyr Cys Lys Leu Ile Asn Gln Val Asn Thr Ile Lys Asn Glu Ala Glu 485 490 495

Val Ile Asn Met Ser Glu Glu Leu Ala Gln Leu Glu Ser Ile Leu Lys 500 505 510

Glu Ala Glu Ser Ala Ser Glu Asn Glu Glu Ile Asp Ile Ser Lys Ala 515 520 525

Ala Gln Thr Thr Ile Glu Thr Ala Ile His Ser Leu Ile Glu Thr Leu 530 540

Lys Asn Lys Glu Phe Ile Ser Ala Val Ala Gln Val Lys Ala Phe Arg

545					550					555					560
Ser	Leu	Trp	Pro	Ser 565	Asp	Ile	Phe	Gly	Ser 570	Cys	Glu	Asp	Asp	Pro 575	Val
Gln	Thr	Leu	Ile 580	His	Ile	Tyr	Phe	His 585	His	Gln	Thr	Leu	Gly 590	Gln	Thr
Gly	Ser	Phe 595	Ala	Val	Ile	Gly	Ser 600	Asn	Leu	Asp	Met	Ser 605	Glu	Ala	Asn
Tyr	Lys 610	Leu	Met	Glu	Leu	Asn 615	Leu	Glu	Ile	Arg	Glu 620	Ser	Leu	Arg	Met
Val 625	Gln	Ser	Tyr	Gln	Leu 630	Leu	Ala	Gln	Ala	Lys 635	Pro	Met	Gly	Asn	Met 640
Val	Ser	Thr	Gly	Phe 645											